The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1670.—Vol. XXXVII. LONDON, SATURDAY, AUGUST 24, 1867. (WITH SUPPLEMENT) {STAMPED ....SIXPENCE UNSTAMPED..FIVEPENCE

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 24 years.)

The Mining Market is gradually assuming an improved tone, stimulated, no doubt, by a lower range of prices for shares, and consequently lessening the risk of loss. The aggregate of actual business has also in the last few weeks considerably augmented. Mr. CROFTS can advise the purchase of shares certain to advance on their intrinsic merits, and, consequently, the most eligible for either investment or speculation.

METALS are advancing in value. Shares recommended for immediate purchase are CHIVERTON MOOR, NORTH CROFTY, EAST LOVELL, GREAT LAXEY, GREAT VOR, MARKE VALLEY, SOUTH FRANCES, WEST CARADON, WEST CHIVERTON, PROVIDENCE, HERODSFOOT, EAST CARADON, WHEAL SETON, EAST ASSET. Some former celebrities of the market, now at nominal prices, should also be looked after as presenting minimum chances of further decline in value, whilst such as are vigorously and economically worked may at any time make important discoveries.

*** Business in the shares of the LILY QUARRIES (Pembrokeshire), on the merits of which copious details can be given. This quarry is estimated to be returning the largest profits of any recently opened.

Bankers: National Bank of Scotland, Finch-lane.

WILLIAM LANE, 44, THREADNEEDLE STREET, LONDON, E.C., STOCK AND SHAREDEALER (Established Thirty Years), has FOR SALE the following SHARES:—

Crelake, 16s. 9d.	100 Don Pedro, £2½.	20 Gt. No. Laxey, 17s.
Chontales (£5 paid), royalty shares, £5¼	75 Dale, 4s.	25 North Crofty, £3 14s.
ditto (£4 paid), ordinary shares, £5.	50 East Brookwood, 5s.	50 North Downs, 3s.
Drake Walls, 8s.	18 East Lovell, £6 14s 6d	75 New Quebrada, 19s. 6
Crebor, 8s.	20 East Russell, £1½.	35 Prince of Wales, 46s 6d
Caldbeck Fells, 15s 3d	20 Frank Mills, 17s. 6d.	100 Rossa Grande, 8s. 3d.
	90 Frontino, 8s.	50 West Kitty, 12s.
	25 Gt. East Lovell, 3s. 6d	5 Wh. Trelawny, £9.

SPECIAL BUSINESS as BUYER or SELLER in North Treskerby, Marke Valley, East Caradon, Don Pedro North del Rey, Great Laxey, and Herodsfoot, either for cash or fortnightly settlement.

GUIDE TO INVESTORS.—MR. LELEAN'S STOCK, SHARE, AND FINANCE REGISTER for August, contains an analysis of the financial statement of all the joint-stock banks, including their dividends and Reserve Funds, with such information as is necessary to guide intending investors. 6d. per copy, or 5s. annually, post free.
Published by Mr. BAKER LELEAN, at his offices, 11, Royal Exchange, London.

MR. WILLIAM WARD,
STOCK AND SHAREDEALER,
No. 29, THREADNEEDLE STREET, LONDON, E.C.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C.

MR. WILLIAM SEWARD, STOCK AND SHAREDEALER, 19, THROGMORTON STREET, LONDON, E.C.

MESSRS. WARD AND JACKMAN,
STOCK AND SHAREDEALERS,
CUSHION COURT, OLD BROAD STREET, CITY, E.C.

Messrs. WARD and JACKMAN are DEALERS in every description of mining properties at close market prices, either for immediate settlement or the fortnightly account.

Bankers: London and Westminster, Lothbury.

MR. THOMAS THOMPSON, MINING OFFICES,
12, OLD JEWRY CHAMBERS, LONDON, E.C.

MESSRS. WILSON, WARD, AND CO., STOCK AND SHAREDEALERS,
16, UNION COURT, OLD BROAD STREET, LONDON, E.C.

WILSON, WARD, and Co. beg to inform their clients that, having just returned from Cornwall, they are in a position to give reliable information respecting the prospects of mines situated in the county.

MR. E. J. BARTLETT,
30, GREAT ST. HELEN'S, LONDON, E.C.

MR G. D. SANDY, STOCK AND SHAREDEALER,
No. 48, THREADNEEDLE STREET, LONDON, E.C., TRANSACTS BUSINESS in EVERY DESCRIPTION of STOCK EXCHANGE SECURITIES, MINING and FINANCIAL ENTERPRISES, at close market prices.
Correct Daily Price List may be had on application.
Money advanced to any amount on legitimate stocks and shares.
References exchanged.

MESSRS. POWELL AND MOSS, SHAREDEALERS,
78, OLD BROAD STREET, and MINING EXCHANGE, LONDON, E.C.

Messrs. POWELL and MOSS have SPECIAL BUSINESS, as BUYERS or SELLERS, in West Chiverton, Chiverton, Chiverton Moor, North Crofty, Prince of Wales, North Treskerby, Caldbeck Fells, Frontino, Chontales, and Don Pedro.
Aug. 23, 1867. Bankers: Bank of England.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 13 years), has FOR SALE the FOLLOWING SHARES, at nett prices:—

Chiverton, £7⅛.	10 East Lovell, £6¼.	3 So. Frances, £28¼.
Prince of Wales, 46s 6d	3 East Basset, £17¾.	10 East Carn Brea, £2 11 3
Herodsfoot, £35⅛.	1 Wheal Seton, £108.	5 Clifford, £7 3s. 9d.
Gt. Wh. Vor, £16⅞.	5 Trelawny, £8 6s. 3d.	1 Wheal Basset, £68½.
Don Pedro, £1 11 3 pm.	20 East Russell, £1 13 9	15 Chiverton Moor, £5.
No. Treskerby, 30s 6d	2 Wheal Buller, £19¼.	25 Frank Mills, 16s. 3d.
East Caradon, £5⅛.	10 Marke Valley, £5 2s.	15 North Crofty, £3¾.
Grenville, 12s.	30 So. Condurrow, 12s.	30 Drake Walls, 9s.
Gt. Retallack, £4 13 9	3 Providence, £27¾.	1 West Seton, £148½.
Great Laxey, £18¼.	10 Gt. No. Downs, £3 16 3	20 East Grenville, £1 18 9
Tincroft, £12¾.	25 Chontales, £1⅛ pm.	50 Frontino, 8s. 3d.
West Kitty, 15s.	20 Prosper United, £2¼.	75 North Jane, 5s.
West Drake Walls, 5s.	20 East Rosewarne, 3s.	30 Rosewarne Untd., 3s.

BARTLETT AND CHAPMAN, STOCK AND SHAREDEALERS, 2, BUCKLERSBURY, LONDON, E.C.

SPECIAL BUSINESS in—

Great Laxey.	*East Providence.	*East Chiverton.
West Chiverton.	Wheal Trelawny.	*Great South Chiverton.
Wheal Seton.	Prince of Wales.	North Treskerby.
East [illegible]ell.	Great Wheal Vor.	*Nangiles.
Trumpet Consols.	Chiverton.	*North Jane.
	Chiverton Moor.	

Shares marked * should be secured at the present quotations; they are safe for a substantial rise in price before long.

GREAT SOUTH CHIVERTON.—This mine has now been working for four years, and operations have been carried on to the depth of 50 fms., while all the necessary machinery and buildings have been erected at surface at a cost of about £3000. We have carefully watched this property for some time past, and from the present indications see every reason to expect a speedy improvement. The lodes already wrought upon are found to be of a very promising character. The one in the winze sinking from the 20 produces copper, lead, and mundic; as they go deeper it increases in size, and from the samples we have before us there can be no doubt that it will, before long, prove a valuable lode for lead. We venture to recommend this mine to the attention of capitalists, believing that an investment of £100 or £200 will ultimately return large profits. The sett joins that of Chiverton, Chiverton, and Chiverton Moor Mines. We shall be most happy to furnish any further information, either personally or by letter, but a personal inspection of the samples and plan of the district would be more satisfactory.
Bankers: London and Westminster Bank.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established Years), has FOR SALE at nett prices:—50 Don Pedro, £1½ prem.; 200 Anglo-Brazilian; 20 United Mexican, £2; 200 Rossa Grande, 8s. 9d.; 100 Port Phillip, 24s.; 5 St. John del Rey, £63; 50 Pestarena; 250 Frontino and Bolivia, 25 Chiverton Moor; 25 Rose and Chiverton United; 200 Dale, 3s.; 5 West Chiverton, £8⅛; 100 Okel Tor; 40 East Rosewarne, 4s.; 110 St Just United; Redmoor; 45 South Condurrow, 13; 50 Pendeen, 23s. 3d: 15 North Retallack, 5; 80 New Quebrada; 75 East Chiverton, 20s.; 120 Mandlin, 10s.; 40 Drake Walls, 8s.; 30 South Darren, 24s. 9d.; 50 West Kitty; 35 Bryn Gwolg, 24s. 6d.; Tincroft Great Consols; 30 Great North Downs, £3¾; 100 West Prince of Wales, 6d.; 50 New Crow Hill, 17s.; 60 Crebor, 8s. 6d.; 120 Gwydyr Park, 3s. 6d.; North Treskerby, £1 11s. 6d.; 150 Lady Bertha, 2s. 3d.; 40 Great South Tolgus, 50 West Maria and Fortescue, 17s.
BUYER of 350 Anglo-Brazilian, 10s.; 200 Port Phillip, 21s.; 20 United Mexican, £1 14s.; 50 Cuddra, 14s.; 20 Chontales, £4¾; 100 Redmoor, 50 Gawton.

STOCK AND SHAREDEALER.—MR. PETER WATSON, ENGLISH and FOREIGN STOCK, SHARE, and MINING OFFICES, 79, OLD BROAD STREET, LONDON, E.C.

Railway, Joint-Stock Banks, Dock, Insurance, Canal, Mining, Steam-ship, &c., and every other description of shares bought and sold at nett prices.

TELEGRAPHIC MESSAGES to BUY or SELL Railway, Bank, Mine, and other shares and stocks, punctually attended to, at nett prices for cash, or for fortnightly settlements, with advice as to purchases or sales.

Twenty-two years' experience.
(Two in Cornwall and Twenty in London.)
Bankers: The Alliance Bank, and the Union Bank of London.

From the close proximity of his offices to the Stock Exchange, as well as the Mining Exchange, PETER WATSON is enabled to act with promptitude on all orders entrusted to him, which at all times are carried out with punctuality, and to the best advantage of his clients.

MR. PETER WATSON has been in CORNWALL during the week visiting and obtaining information respecting the leading Dividend and Progressive Mines. He will return to London on Monday, the 26th instant, and will be in a position to advise with his customers and others as to the purchase or sale of Cornish and Devon mine shares.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, Aug. 23, No. 438, Vol. IX., price 6d. each copy, forwarded on application, contains information on the following mines:—

North Wheal Chiverton.	Great South Tolgus.	Mineral Rights, and
North Wheal Crofty.	West Wheal Seton.	Mining Association.
East Wheal Lovell.	West Great Work.	Don Pedro North del Rey
	Chontales.	

Remarks on the Metal Market, and advance in the Copper Standard.
PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London, E.C.

MR. EDWARD COOKE, STOCK AND SHAREDEALER,
76, OLD BROAD STREET, LONDON, E.C.

Deals in Chontales, Don Pedro North del Rey, Rossa Grande, Anglo-Brazilian, Frontino, Prince of Wales, Chiverton Moor, North Wheal Chiverton, West Wheal Kitty, and North Crofty, at close market prices nett.

Orders for all kinds of Stock Exchange securities, either by letter or telegraph, promptly attended to.

Satisfactory references given in any town in the United Kingdom.
Bankers: Alliance Bank.

MR. W. H. CUELL
(late of the firm of WATSON and CUELL),
STOCK AND SHAREDEALER,
1, FINCH LANE, CORNHILL.
References exchanged.
All transactions can be for cash or account.
Bankers: Bank of England.

MR. T. ROSEWARNE, 81, OLD BROAD STREET,
LONDON, E.C.
Money advanced on good mining shares. Office hours from 10 to 4.
Bankers: Bank of England.

GEORGE RICE, STOCK AND SHAREDEALER, 78, OLD BROAD STREET, LONDON, E.C. (Member of the Mining Exchange), (25 years' experience), TRANSACTS BUSINESS in MINING SHARES, at close prices. Money advanced on mining shares.
Aug. 23, 1867. Bankers: Bank of England.

MATTHEW GREENE, STOCK AND SHAREDEALER,
ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.

MATTHEW GREENE can recommend a silver-lead mine, now selling for a few shillings per share (quite free from debt), and certain for a rise to as many pounds in a few fathoms sinking. Parties desirous of investing in this most promising lead mine should apply at once. Plans, specimens of the lode, and every particular can be had at MATTHEW GREENE'S office. MATTHEW GREENE confidently asserts that no such chance is at present to be had as the shares in this mine.

MATTHEW GREENE is most desirous that all parties meditating taking shares should first either see for themselves or send a competent mining agent, to whom, on application, MATTHEW GREENE will be happy to give an order to inspect the property.

Bankers: Ransom and Co., London.

JOHN RISLEY, STOCK AND SHAREBROKER
(SWORN BROKER),
48, THREADNEEDLE STREET, LONDON, E.C.
Bankers: London and Westminster, Lothbury.

MR. R. EMERSON, 28, GREAT WINCHESTER STREET,
LONDON, E.C., has the following SHARES FOR SALE:—60 South Devon, 20s.; 50 Dale, 2s. 6d.; 50 Gwydyr Park, 3s. 6d.; 40 West St. Ives, 5s. 6d.; 30 Lady Bertha, 2s. 6d.; 20 West Kitty, 13s.; 100 East Seton; and 50 Budnick Consols, 8s. Advice given on the sale and purchase of shares.
Eighteen years experience in Cornwall and Thirteen in London.

MR. JAMES HUME, 74, OLD BROAD STREET,
MEMBER OF THE MINING EXCHANGE, LONDON.

TRANSACTS BUSINESS in all description of railway stocks, mine shares, and miscellaneous securities, at nett prices, and at margins of 1¼ per cent. on mine shares, and ⅜ per cent. on railways.

Has BUSINESS in Chontales, Pestarena, Don Pedro, Anglo-Brazilian Gold; also in East Basset, East Russell, Prince of Wales, Crebor, South Condurrow, Chiverton Moor, Chiverton, West Chiverton, Clifford, Uny, and all other Mines, Railways, and miscellaneous shares.

EAST CHIVERTON.—Mr. HUME recommended this mine as being one of the most promising adventures for a prize on the List. The West Chiverton lode will soon be cut, which will probably make shares worth £5 per share. Full particulars may be obtained on application.

A well selected list of good shares, dividend and progressive, likely to rise during the next few months, can be supplied.
Bankers: The London Joint Stock Bank.

MESSRS. FREDERIC GILL AND CO., STOCK AND SHAREDEALERS, ST. CLEMENT'S HOUSE, CLEMENT'S LANE, LONDON, E.C., TRANSACT BUSINESS in all MINING STOCKS and SHARES at closest market nett prices, either for cash or account.

Messrs. FREDERICK GILL and Co. have for sale a few shares in two first-class companies. The present price of the shares being low they can confidently recommend them to *bona fide* investors as a safe speculation, it being almost certain that the current year will see both paying dividends. Reports on both of the properties will be forwarded gratis on application.

JAMES SCOTT AND CO., STOCK AND SHAREDEALERS,
1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.

All Stock Exchange securities dealt in at close market prices for cash or the bi-monthly settlement. References given.

JAMES SCOTT and Co. have large dealings in East and West Caradon, East Lovell, North Crofty, Prosper United, Prince of Wales, Anglo-Brazilian, Don Pedro North del Rey, Pestarena, Chontales, and Frontino and Bolivia shares.

N.B.—JAMES SCOTT and Co. are the proprietors of the "British and Foreign Mining Circular."

MR. D. STICKLAND, M.E., having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.

Mining, Railway, and other Shares bought, sold, or exchanged. Shares for sale in mines and quarries that will pay 15 to 20 per cent. per annum.
Offices, 5, Finsbury-street, London, E.C.

PRINCE OF WALES, DON PEDRO, AND CHONTALES MINES.—THE SUBSCRIBERS have special business, free of commission, in the shares of the above Mines, either for immediate or future settlement, to suit the convenience of Dealers. RICHARD TAYLOR AND COMPANY.
No. 12, Clement's-lane, Lombard-street, London, E.C.

INVESTMENT, LOAN, AND BANK AGENCY.
Established 1839.

Investments and Sales of every description of Public Securities can be effected, either for immediate or deferred settlement, as may be agreed upon.

Loans granted, for one year or any shorter period, on Stocks and Shares having a market value.

DEPOSITS of all amounts received at 5 per cent.

Bank and Money Agency Business generally undertaken.
RICHARD TAYLOR AND COMPANY.
No 12, Clement's-lane, Lombard-street, London, E.C.

MR. CHARLES THOMAS,
MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,
3, GREAT ST. HELEN'S, LONDON, E.C.

Mr. CHARLES THOMAS is at all times prepared to advise as to the purchase or sale of mining properties, and, being in constant communication with the principal mining districts of the kingdom, is in a position to afford information on the merits and prospects of mines and mining companies.
3, Great St. Helen's, London, E.C.

MESSRS. LANE AND GIBBS, 2, ROYAL EXCHANGE,
LONDON, E.C. (Members of the Mining Exchange), STOCK AND SHAREDEALERS, AND FINANCIAL AGENTS, transact business in all kinds of securities at closest nett prices for cash or account.
Parties of respectability can have transfers registered in their names previous to payment. Daily price list on application.
Bankers: London and County Bank.

SAFE INVESTMENTS,
paying 5 to 20 per cent. per annum on outlay.
SHAREHOLDERS, CAPITALISTS, AND INVESTORS seeking valuable and reliable information, and requiring safe, sound, and profitable investments, should at all times consult
SHARP'S INVESTMENT CIRCULAR,
Post free. It is a safe guide for executors, trustees, and others.
GRANVILLE SHARP, STOCK AND SHAREDEALER,
32, POULTRY, LONDON, E.C.
FOR SALE:—50 Wheal Emma (Buckfastleigh). An offer wanted.

MR. J. B. REYNOLDS,
Nos. 70 and 71, BISHOPSGATE STREET WITHIN,
LONDON, E.C.,
Business transacted in British and Foreign Stocks, Railway, Bank, Insurance, Financial, or Mining Companies' Shares, and all Miscellaneous Securities, at the lowest market quotations.
Exchanges effected and purchasers found for shares not generally marketable.
Bankers, City Bank.
ESTABLISHED TEN YEARS.

MR. HENRY MANSELL,
STOCK AND SHAREDEALER,
No. 44, THREADNEEDLE STREET, LONDON, E.C.

Mr. HENRY MANSELL, having had twelve years' experience in the Mining Market, now begs to offer his services in the purchase and sale of Stock and Mining Shares. References exchanged.
Bankers,—London Joint-Stock Bank.

WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, E.C., DEALS in ALL DIVIDEND and sound PROGRESSIVE MINE SHARES, either for cash or the fortnightly settlement at close market prices.

Has BUSINESS in St. John del Rey, Don Pedro, Anglo-Brazilian, Frontino, Rossa Grande, Chontales.

WALTER TREGELLAS can confidently recommend the Taquaril Gold Mine. Full and reliable information on application.
Bankers: Alliance Bank.

MESSRS. J. TAYLOR AND CO., MINING AGENTS AND SHAREDEALERS, 17, CROSS STREET, MANCHESTER, have FOR SALE:—

20 West Basset.	20 Great North Laxey.	50 Clyne Colliery.
30 Prince of Wales.	30 Great Mona.	30 Cashwell.
		30 East St. Just.

MR. JAMES STOCKER,
STOCK AND SHAREDEALER,
PALMERSTON BUILDINGS, OLD BROAD STREET, LONDON, E.C.

MR. J. N. MAUGHAN, STOCK AND SHAREBROKER
(Member of the Stock Exchange),
No. 2, COLLINGWOOD STREET, NEWCASTLE-ON-TYNE,
Transacts business in Railways, Funds, and every description of Mines.
Bankers,—Messrs. Lambton and Co.

MR. N. COVAS, MINING SHAREBROKER and COMMISSION MERCHANT. Cash advanced on negociable Mining Shares.
OFFICES,—8, NORTHUMBERLAND STREET, STRAND, LONDON.
Bankers, London and Westminster Bank, Bloomsbury branch.

MESSRS. McNEILL AND LONG, STOCK, SHARE, AND MINING DEALERS,
31, THREADNEEDLE STREET, LONDON, E.C.

MESSRS. KEANE AND CO., MINING AGENTS AND SHARE BROKERS, BRIDGEWATER CHAMBERS, BROWN STREET, MANCHESTER, devote special attention to MINING in WALES and the NORTHERN and MIDLAND COUNTIES. From their consequent intimate connection with these districts, Messrs. KEANE are always in a position to supply their clients with the latest and most reliable information, and to transact with promptness all business entrusted to them, at the best prices of the day.
Messrs. KEANE transact business either at nett prices or on commission.

MANGANESE WORKS AND MINES, of the most productive kind, FOR SALE on the Continent, on very advantageous terms. Capital required, about £30,000. Principals only dealt with.
Address, "X. Y.," 8, Birchin-lane, London.

LLANFAIR GREEN AND BLUE SLATE QUARRY, COMPANY (LIMITED).—Manager, T. HARVEY, Esq.—TO BE SOLD, FORTY SHARES, at £1 per share. No calls.—Address, "A. B.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

ON SALE, a LARGE STOCK of NEW AND SECONDHAND STEAM-ENGINES, BOILERS, STEAM HAMMERS, ENGINEERS' TOOLS, and MACHINERY of every description.

For particulars, see WHEATLEY KIRK'S "Monthly Circular," by post, free.

NEW STEAM-ENGINES, BOILERS, COLLIERY AND CONTRACTORS PLANT made at a short notice.

BEST MATERIALS AND WORKMANSHIP GUARANTEED.
8, ESSEX STREET, AND STORES, 21, OLD GARRATT, MANCHESTER.

FOR SALE.—A LIFT of 16-in. PUMPS and BOTTOMS, all in excellent order; a quantity of hammered iron STRAPPING PLATES, all in excellent condition. Also, a 40-in. PUMPING ENGINE, only worked a few months; and a WATER-WHEEL, nearly new.—Application to NICHOLLS, MATHEWS, and Co., Bedford Ironworks, Tavistock.

JOHN HOCKING AND SON, ENGINEERS, REDRUTH,
CALL the ATTENTION of COLLIERY PROPRIETORS and others to the present favourable opportunities for the purchase of secondhand CORNISH PUMPING ENGINES and BOILERS at cheap rates. Plans, valuations, removal, &c., of every description of mining machinery undertaken.
FOR SALE, ONE superior 30 in. DOUBLE ROTATORY ENGINE.

MR. T. L. COTTINGHAM,
MINING ENGINEER, VIEWER, AND AGENT.
COLLIERIES, MINES, QUARRIES, AND MINERAL PROPERTIES INSPECTED, SURVEYED, VALUED, REPORTED ON, AND MANAGED.
BORINGS, &c., CONDUCTED.
OFFICES,—No. 4, WREXHAM STREET, MOLD.
Agent for the National Steam Boiler Insurance Company (Limited).
Leases of several good Coal, Lead, and Slate Properties for sale.

MR. THOMAS THOMAS,
ASSAYER, &c.,
COPPER ORE WHARVES, SWANSEA.

ASSAY OFFICE AND LABORATORY,
No. 2, CROWN CHAMBERS, CROWN COURT,
THREADNEEDLE STREET,
CONDUCTED BY W. T. RICKARD, F.C.S., &c.
(Late MITCHELL and RICKARD).

Assays and analyses of every description of mineral and other substances, manures, &c.

Instructions in assaying, and the most improved methods of reducing gold, silver, and other metals.

MINING PROPERTIES INSPECTED AND REPORTED ON.

Original Correspondence.

REPORT FROM THE SELECT COMMITTEE ON MINES—No. I.

SIR,—I have not until now had an opportunity of carefully perusing a printed copy of this report. It is really a very important production, and as it is likely to lead to legislation its measures demand a careful discussion from all interested in the working of coal mines, and in the working of the Acts of Parliament relating thereto.

The "No. 10" resolution requires to be very considerably modified before it can be of any practical utility. It is a restriction on the working of mines in non-fiery districts, which the learned committee could never for a moment have intended. Their meaning in passing the resolution is easily perceived, and is highly commendable, but the intention of the honourable committee and the practical effect of such a resolution if made law are very remote from each other.

My present purpose, however, is to deal with the clauses relating to mines inspection. I am really surprised, not at the conclusion to which the committee have arrived on this head, but at the evidence from a consideration of which they framed their 14th resolution—namely, "that the present staff of Inspectors should be increased, with a view to more frequent inspection," &c. However could the committee have been led to such a recommendation after the decided evidence of the Inspectors of Mines as a body? In the letter addressed to the Home Secretary on Jan. 26 by a meeting of the Inspectors, held on the 23d of the same month, the latter expressed themselves as being of an opinion that their present number—twelve—is sufficient for carrying out the Act of Parliament as it now exists: they in this letter disclaim any obligation they are under to act voluntarily or spontaneously in the matter of preventing accidents in coal mines; that, on the other hand, all they should be called upon to do is to "be in the districts," that matters may be referred to them, and inspection be made, and requisite steps taken to enforce the provisions of the law when accidents occur which may be of a nature to deserve their attention. These Inspectors, forsooth, to use the language of one of themselves—

"Do not feel it their duty to visit mines without being summoned in consequence of any accident, or from any complaint, and that they do not go into a mine without a special reason; by going farther than this he would be doing a positive mischief, and better would it be to repeal the Inspection Act altogether. To attempt to penetrate every spot in the underground workings in a colliery, for the purpose of inspection, would do more harm than good."

I exceedingly regret, Mr. Editor, not having before me the statute relating to the duties of Inspectors of Mines, but in all common sense, in all due respect for the intelligence and penetration of our legislators, I cannot for one moment entertain a suspicion that this very senseless and mischievous rendering of the duties of the Inspectors by themselves—or, at least, by some of themselves—could ever have been intended as the spirit and meaning of the Act of Parliament by which these Inspectors are appointed. The select committee, no doubt, with the statute before them, see that such a view of the duties of Inspectors is not consistent with the language of the statute by which their duties and powers are alike defined, mildly state that it is for the Secretary of State to decide whether such a view as the Inspectors themselves take is the correct one or not; but, say they, if anything in the way of spontaneous action is required of the Inspectors of Mines, their present numbers are very inadequate to the performance of such a duty, and *it is in the belief that such a duty was imposed upon them by the act of* 1860, *and might be usefully discharged by them, that they recommend an increase of Inspectors.*

I cannot for a moment believe that the Inspectors in meeting assembled were unanimous in their decision as to the recommendation or opinion that in numbers they were amply sufficient and competent for the full and effectual work of the Inspection Act; neither can I believe that such an expression of opinion was the honest and conscientious conviction of what is *de facto* the case. I presume that each Inspector is supplied from the Home Office with well-defined and highly authoritative instructions as to what his duties actually are; and it cannot for a moment be supposed that these duties mean nothing more than that the Inspector is to act merely as a coroner on the occurrence of a fatal accident; that after having framed laws for the better regulation of mines, and thereby lessening the amount of accident to the lives and limbs of the workmen, the Government is content that its servants, the Inspectors, shall be simply planted in their different districts, to be sought out and applied to by the workers in mines as occasion may require. An ex-Inspector used to say in his reports that he had visited every mine in his district. The successor to Mr. Morton, in the Barnsley district, is said to be visiting pit after pit in rapid succession; and the Inspector in my own district does, I am confident, act not only spontaneously but promptly in all cases where he has the least suspicion of danger. What, in all conscience, is the use of Inspectors if they are not to act so; how can they be expected to know that the general and special rules at all collieries are being complied with unless this knowledge is obtained by personal inspection? The complaints of men noticed in evidence by the committee are stated to be very few, and this, indeed, is what myself, or anyone acquainted with the working of mines, would expect. In the first place, men are naturally disinclined to make any complaint in any way implicating their masters and employers; and, secondly, how can we reasonably suppose that workmen, confined as they are to their working places in the colliery, are likely to know whether or not all the rules and regulations appointed under the Inspection Act for the safety of the colliery are properly carried out. Old wastes must be travelled daily, to see that proper air courses are maintained, and an adequate amount of ventilation daily supplied, so that no accumulation of fire-damp may be permitted. Is every hewer in the pit likely to know that this necessary supervision is daily attended to? And thus we might enumerate all the particulars comprehended by and alluded to in the general and special rules of every colliery in the United Kingdom, and truthfully and forcibly annex a similar query. Calculations have been frequently indicated in the Journal demonstrative of the physical impossibility of such an inspection of mines by the present number of Inspectors as was intended by the statute of 1860. As to the ridiculous absurdity of Inspectors acting as viewers, or incurring thereby any responsibility to themselves, or to the Home Office, the question is really unworthy of the merest consideration by colliery owners, viewers, and all practically acquainted with the working of collieries. The duty of the Inspector is plainly to see that the sanitary and other provisions of the Act of Parliament are properly carried out. As to plans of working coal, or methods or systems of any kind, coming properly under the authority and direction of the colliery manager, with these the Inspector has nothing to do: at the same time, if the Inspector is, as he ought to be, a person properly qualified by practical experience and by scientific and general knowledge of his duties as inspector, all managers or owners of collieries will be only too glad to avail themselves of the benefits of conversations with the Inspector on matters of great peril and hazard in connection with the working of their mines; but to say that an Inspector would be in any way responsible for what might follow such conversations is an absurdity so palpable that I care not to spend time and paper in any other way than that of a mere allusion to it. An old saying is, "In the multitude of councillors there is wisdom," and I am firmly convinced that any assistance that Inspectors may be able to give, either by way of expression of opinion or suggestion, would be well received at most collieries. Apart from this, the Inspector, in fact, is a mere policeman, and his attainments in "mining science" are of no practical utility. It is not, Mr. Editor, the large and well conducted, and even most dangerous collieries in the country, where any effect of extension of the Inspection Act is feared; in all such places every kind of arrangement for the safe working of the colliery is carried out under the superintendence of ably qualified viewers. Where, in such cases, violations of law are met with they are rare exceptions to the general rule of strict observance, yet I maintain that even here inspection is necessary, as a guarantee to the public as well as to the miners, that all rules and regulations for the safety of the latter are efficiently observed.

It is, however, in the, at present, very numerous collieries having a kind of hand-to-mouth existence where efficient inspection is most needed and dreaded. In districts where such mines are situated I have myself seen the effects of bad ventilation, as exhibited by the difficulty in maintaining candlelights in working places, and by the haggard, unhealthy appearance of the men at the surface. Not long ago, in a case of this kind, men were actually lashed to the rope in a bucket before starting their ascent from the bottom of the pit, lest, from the effect of working for hours together in black damp (CO_2), they should, during their ascent to the surface, be so overcome with giddiness as to lose their hold and fall to the bottom of the pit. Another instance, coming under my own personal observation, is where the ventilation of deep workings was made to depend upon the volition of air, if the expression may be allowed, to descend and return without any means, such as doors or stoppings, to convey it to the working places. Again, of my own personal knowledge, an Inspector has insisted upon an increase in the strength of plumber-blocks for the winding-machinery, and has himself carefully examined a rope during its unwinding from the machinery into the pit, for the purpose of inspecting its condition, so that he might satisfy himself that a new rope for safety was not requisite. How, then, can Inspectors at present declare that their duties are only those imposed by reports from workmen, or when other causes of necessity for their interference operate. It does most forcibly appear to me that the instructions to Inspectors, as at present issued from the Home Office, require more clearly to be set forth, as, from the evidence quoted, and much more from the evidence which I have not quoted, but which, nevertheless, appears in the printed proceedings of the select committee, that the Inspectors themselves are allowed to define what their own duties are, or, to say the least, what they ought to be. To conclude, I am of opinion, and I think a majority of those engaged in coal mining pursuits will agree with me, that the present staff of Inspectors is not sufficient for carrying out the spirit and meaning of the Act of Parliament, under which they receive their appointments; and I am strongly inclined to think that their appointments ought to be made to partake more of a competitive character than they do at present.

JAMES GREGORY.

THE SELECT COMMITTEE ON MINES.

SIR,—In last week's Journal appears a letter from one who signs himself a "Butty," which, if rightly given, agrees with all "the Committee on Mines" recommend, and then proceeds to demolish all their recommendations—so far as he can. The letter is one that should give the writer a place in the Temple of Fame if he were only to be known out of his own sphere as a "Butty." In it he says that the "miners admitted that their real object in asking the females to be put from the pit banks was to lessen the supply of labour, that the men's wages might be increased." This, as one interested, I totally deny, and ask of the "Butty" to point out whenever such was admitted by the men. There is not more than 6000 or 7000 females engaged above ground altogether about the mines of England, Scotland, and Wales. These spread over the mining districts would not diminish the average of wages by the most finite fraction, suppose they were all to be removed to-morrow. Besides, *the complaints were made by the miners*, not by any that worked above ground; the miners do not feel they have anything in common with the men that work on pit banks. The "Butty" says the late Mr. Mackworth gave satisfaction to the miners. He did—he was a man for the miners' safety such as we will not soon see his like again. Then "Butty" follows this up by saying that Mr. Dickinson, Inspector of Mines, is quite beloved by the men of his district." Will "Butty" only give the name of the place in Mr. Dickinson's district where this is so? Will he tell the parts of the district he is over that know him at all? As one that knows something of the miners of Mr. Dickinson's district, I beg to assert that were he to be appointed by the suffrages of the miners' next meeting, out of the 23,000 miners under him he would not by a ballot get 250 votes. Let "Butty" go meet the men in their hundreds and thousands, and hear what they say. "Beloved" forsooth! Has the head and the ears of the "Butty" been enveloped in something that sounds could not reach, and objects could not be seen for this some years past, that he makes such an assertion? What has meetings of thousands of men at Bolton, at Farnworth, Kersley, and Oldham said on this subject; was it that Mr. Dickinson was beloved?—No.

Again, he says that the men did their best to get Mr. Moore appointed. True, but why? Mr. Moore had written a book, which showed a very intimate knowledge with the subject of good ventilation. He had asserted that 8000 cubic feet per minute would ventilate every mine in Scotland, or thereby. He had said if his "directions were only attended to that explosions would be all but impossible." Mr. Moore was made an Inspector of Mines. Explosions continue as frequently as formerly; men are killed, men are roasted, men are subjected to sufferings just as much as ever, children are made fatherless, wives are made widows, the cry of want, of poverty, and distress continues to abound. Now the men detest Mr. Moore, as his theory has not been put into practice when he has the power to do so, and from this he has lost all confidence among the men.

Holytown, Aug. 20. ALEXANDER MCDONALD,
President of the Miners' National Association.

VENTILATION OF COLLIERIES.

SIR,—In last week's Journal I find reference made to the laudable exertions of Mr. Willis, the manager of the Washington Collieries, on the above subject. There appear to be two French systems about to be tried—those of Lemielle and of Guibal. There can hardly be a doubt that a foreigner, even with an inferior invention, has a much better chance of being encouraged than has a native. It is probable that an Englishman would find this practice reversed if he went to France for the purpose of introducing his invention in opposition to a native. Science ought to be considered of no country; and in endeavouring to decide which is the best mode of ventilating collieries, and, if possible, to prevent the recurrence of the many fearfully destructive accidents which have of late been so common, no good project should be left untried.

There are patentees in this country who are utterly destitute of capital, and cannot go to the expense of an experiment, and, consequently, the public are deprived of the use of a good article, and the patentee derives no benefit from his invention. It might be thought that in a case of this description the Government would step in, on the principle of saving life; but all the Government does for the unfortunate patentee is to deprive him of the little cash he may be in possession of, by way of fees and stamps, before he can obtain a patent. I hope that Mr. Willis and his philanthropic employers will not rest satisfied with merely testing the French inventions, but also those English inventions which appear to be equal, if not superior, to them. Lemielle has departed considerably from his original plan as shown in the patent, but, perhaps, not beyond the usual latitude in such cases.—*London, Aug.* 19. PATENTEE.

ENGLISH v. FOREIGN MINING.

SIR,—As an adventurer in foreign as well as English mines, I beg to suggest to the speculating public the great advantages to be derived by embarking in new and well-selected mines, more particularly in this country, at present. I have been largely interested in mines during the last 40 years, as well as in other investments, and I must in honesty say that I have not found any investment, on the whole, so profitable as Cornish mines. Till latterly every one out of three mines I embarked in turned out a prize. I allude to English mines, but, I am sorry to say, it is not so with mines abroad. On the whole, my capital has not been increased by embarking in mines out of this country. Copper I have invariably found to pay the best, but the present price is ruinous, not only to foreign mines, but to the deep mines in this country. You may manufacture a chain that will not hold its own weight, and the very old mines seem to lose the quality of the mineral in depth. For example, copper from 100 fms. to 200 fms. deep seems to be in the prime of quality, but below this depth the mineral declines in percentage considerably. Can any of your numerous and practical readers explain this, and the cause? Look at all the deep mines on record, and I vouch for the correctness of this assertion. The Stannary Court and some of the ill-advised merchants have done more to discourage people from embarking in mines than words can express, but this can in future be avoided by paying cash instead of taking credit, and is a matter which ought to engage the attention of the investing public in future. The great landowners in Cornwall, I am told, now see the necessity of reducing the royalty from 1-15th to 1-24th and 1-30th. The Devon Consols pay

1-10th, I believe; very high terms for these mines, where all is profit to the landowner. I have invariably found that an outlay of 20,000*l.* invested in this country will equal ten times the amount laid out in foreign mines, it matters not what the mineral is.

Brighton, Aug. 21. ONE INTERESTED IN MINES.

SLATE TRADE IN NORTH WALES—No. III.

SIR,—The slate formations in the Principality are well worthy the increased attention which is now being given to them. It is scarcely possible to conceive of a field possessing such immense resources for rewarding the use of money as is open to enterprising capitalists in the slate trade of North Wales. Capital conjointly with labour, directed by an agency eminently *practical*, cannot fail to give satisfaction in developing those very valuable deposits. This remarkable enterprise in some instances (notwithstanding its incalculable treasures) has suffered both practically and commercially; but this has been caused principally in consequence of its having been vaguely considered and improperly handled. Wealth to the value of *millions sterling* will yet be realised by the production and sale of slates from deposits of this valuable commodity hitherto undeveloped. It often happens that incompetency in management offers as a sett-off against error in judgment, &c., that "wages have advanced." I have been often told that quarrymen get too high wages, and in many instances it's is true. There is a class of men who get much more than they deserve: they too often succeed in obtaining bargains at a poundage that will yield them from 25s. to 30s. per week, simply because their neighbour (who, by the way, is a more able workman) is accustomed to earn that amount. The workmen are not unconscious that slate prices are advancing, therefore they think this a good reason for them to expect an increased consideration in the shape of an advance in their wages. It is a great mistake to suppose that by letting "bargains" to the men at an inadequate price the returns in the monthly statements will be thereby improved, or that the shareholders will be particularly benefited. In fact, from an experience of upwards of 30 years as quarryman, manager, and proprietor, I *know* that the advantages are the greatest when the workman is well paid for his labour. The question now arises, What is a fair remuneration for workmen's services? To which I answer that in this, as in every other art, their pay should be in proportion to their *tact* and *accomplishments* for manufacturing the slate rock entrusted to them. There is a surprising contrast in the capabilities and skill of the operatives employed upon this branch of industry, which is not sufficiently understood. The amount of slates returned from each "bargain" will greatly depend on the abilities and knowledge of the parties engaged upon it, an all-important item, clearly demonstrating the necessity of an efficient management. A looker-on might imagine that any person could blast the rock, and soon learn the art of "cleaving" it, considering the apparent ease with which the rock is divided by the "splitter" into slates of required thickness; but to divide the rock according to the lineality of the grain requires an intimate acquaintance with its flexibility, &c. The "pliancy" in the grain of slate rock differs very considerably, therefore men skilled in the art of "splitting" one kind of rock often find themselves at a loss on changing to a quarry where the divisionality of the grain is different from what they have been accustomed to work. Perhaps I should here remark that in this respect a great contrast exists, as a rule, in every quarry, and often in the same vein, therefore we are necessarily brought to perceive the importance of placing *experienced* agency at the head of quarry operations.

The appointments of the operatives should be in accordance with their abilities for treating the several descriptions of slate rock in the manner most conducive to its profitableness. Nothing can compensate for error in this particular, as the profit and loss account will be governed by it in the highest sense. Men highly efficient in the "cleavage" art will return from twentyfold and upwards more in slates from the same quantity and quality of rock than their less fortunate co-workmen. This difference in judgment and workmanship will apply to those engaged in quarrying the slate rock from the bed or vein, as well as to those employed on its various stages of manufacture. None but really practical men can fully realise the force of the foregoing remarks. I imagine that enough has been said here to enlighten parties who may be interested in quarrywork financially, and, therefore, hope that the more skilful workmen will be encouraged by receiving a just recompense as a reward for their hardly-earned acquaintance with this particular business. Considering the prices obtained for slates, I think the wages should be 25s. per week for *good hands*, that is for "rockmen," "splitters," and "dressers:" supposing this to be the *standard* pay, those possessed of extra tact will invariably earn 25 per cent. more, whilst those who make but slow progress will not, or should not, exceed from 18s. to 20s. per week. In truth, considering the great loss sustained pending the manufacture of the slate rock (by men that should be engaged on other work), their services are really dear at any price. Another important matter should not pass unnoticed—that the greater portion of the slates made by unqualified parties are not properly divided in the "block," consequently the proportion of *second* quality is large, and, therefore, the proprietor is a sufferer in a great degree, as everyone knows that any commodity of a *second* quality has to be disposed of at a *second-rate* price. The most effectual remedy for the inaptitude and wasteful habits of the less accomplished workmen would be to let the best "rock bargains" monthly to those who make the largest returns of best slates from the smallest quantity of rock of the same size and quality. This principle would prove a stimulus, as, were it acted upon, indifferent parties would lose their "bargain" when it improved, and take to it again when it became less favourable. Unfortunately, it is the rule for each party to retake the same "bargain" (regardless of their general fitness) at the monthly letting, however much it may militate against the proprietor.

Tremadoc, Aug. 21. JOSEPH KELLOW.

THE PROGRESS OF MINING—AS A SCIENCE, AND SOURCE OF COMMERCIAL WEALTH—No. XI.

SIR,—My object in speaking a word of encouragement for mining is less to promote the advancement of it in particular places, than to advocate it as a general or universal benefit to the world. But I am not sorry that Mr. Ennor has cast a doubtful glance, with his prophetic eye, on Wales, and alluded to the Lisburne Mines, in Cardiganshire, in particular. Mining can never suffer by any strength of light that is brought to bear on those mines to which Mr. Ennor takes exception, and why? Because with them before his eyes his warning note would not take the proper dolorous tone. There would be too much sunshine in the picture. In reality, the Lisburne Mines, instead of being a single exception to a rule, are a number of mines occupying a large tract of country, of many square miles in area—forming, in fact, a better sample of the general character of the country than any solitary example on which to found a condemnation of its mines as a whole. The Lisburne Mines stretch across the mining district of Cardiganshire from south to north, from the River Marchnod, near Faw Rhos, to Frongoch, near the Devil's Bridge, a distance on the meridian of five to six miles. The estate is traversed from east to west by five large metalliferous lodes, the northernmost of which is Frongoch lode, on which there are two mines opened, that of Frongoch and that of Graigoch; the second lode is Logylas, on which are opened two mines, East and West Logylas; the third is Penygest; the fourth Glogfach; and the fifth and southernmost Glogfawr, all holding good mines, occupying from 12 to 15 square miles of country. Up to Midsummer last, from the commencement, in 1834, these mines have paid profits to the shareholders of 195,800*l.*, upon a total outlay of 7500*l.*, of which 5000*l.* went to pay for the grants and machinery, and 2500*l.* was employed as working capital. Mr. Ennor, therefore, is wise, when he wishes to depreciate the mining value of a country, to ignore such a set of mines as these, as they do not look like much poverty in the rocks there. Being established, also, for 20 years speaks of permanency as to security. "But," says Mr. Ennor, "there are a number of mines in that country making calls." Well, if this be a good reason for condemning mines 30 years ago, when the shareholders were contributing funds to open them, this argument might have equally as well been applied against the Lisburne Mines as it is now against the younger mines opening in the district; these mines, in my estimation, constitute the hope, and not the death warrant, of Cardiganshire.

From the dividend mines named by Mr. Ennor, I take it that his remarks are principally directed against Cardiganshire, in which I think he says there are 100 mines making calls. I do not know whence he derives his information; I find only eight of the Cardiganshire mines marked in the Progressive List, all of which are making considerable returns; while in the Dividend List, which he says he has taken from the Journal, he has omitted two—South Darren and Bronfloyd, and treated the Lisburne Mines, which are really seven, as if they had been only one. Everybody has a right to wheel his own barrow, and, no doubt, Mr. Ennor is shrewd enough to suspect that his own interest would be benefited if he could succeed in mystifying the shareholders in the Cardiganshire Mines as to the value of their own property. Mr. Ennor's letter says to them, in other words, "Gentlemen, if you have any doubt as to the mines in which you are engaged send for me, and for a small sum I will give you a clear insight into the nature of your property." I fear it is playing this game of innoculating mining investors with want of confidence that has led to so much misery and want amongst the working population of Cornwall, and that is still desolating its industrious element; but when the wolf has desolated one region he must fly to another. I hope, however, that this ill-omened croak will bode no great evil to Cardiganshire, but that shareholders will manfully do their duty, and carry out the trials in the mines in which they are eugaged to a legitimate end. In nine cases out of ten I have found it to be the case that where inspectors are called in to over-rule managers, or the affairs of companies are submitted to committees of investigation, the real business of the companies, no matter how healthy they may be, will not save them from having their fate sealed, and the floor from being thoroughly cleaned by the new broom. My advice to mining investors is to stick to their interest, and mind their own affairs, never heeding the kind-hearted suggestions of what Mr. Spurgeon calls the 2½d. prophets. M. F.

HISTORY OF MINING—No. IX.

SIR,—In my recent letters I endeavoured to prove that the progress of mining and of civilisation is identical; that the rapid advance of society in remote antiquity depended upon the discovery and successful working of metals, and that the decline of States, and deterioration of races, were marked by a recession in mineral discovery, and the artifice of metals. During the gloom of the middle ages little was done, by what may be called the Gothic-Roman Empire, in mining. The zeal for discovery, and the art of using metallic substances, which characterised the world in earlier ages, faded almost away, and as a result barbarism increased in most places, and remained unmitigated everywhere. The conquests of the Saracens and Turks not only subjugated the Eastern Empire, but checked the advance of civilisation, and we accordingly find throughout their long reign in all the countries which they vanquished an almost entire cessation of mining, except as at more modern dates Western Europeans, and the ideas of Western Europe, have penetrated the circle of Mahomedan superstition, intolerance, and repression of thought.

Spain is a striking exemplification of the fact that mining enterprise and civilisation go hand in hand. In the ages when she was wealthy and powerful she was active in the discovery and working of gold, silver, and some other metals, and (as I proved) her coinage circulated throughout the world. Her decline has been marked by an absence of mining enterprise, and, except in certain descriptions of jewellery, a decline of skill in the working of all metals.

Great Britain also illustrates this truth. The progress of our country has been singularly marked by the advance of mining. The most ancient of the Britons were most powerful in the extreme South, where mines were first worked, and tin constituted so acceptable a basis of Oriental commerce. The Cornish Britons possessed roads, carriages drawn by horses, ships, and exchanges or places of great commercial intercourse, when the more Northern Britons were but little advanced in civilsation, and when the Gallic neighbours of both did not use draught horses, had few roads, no ships deserving the name, and no great centres of commerce, so far as authentic history enables us to express a judgment. The Saxons and Danes in Britain neglected mining, although the Romans, in their higher civilisation, had left behind them sufficient proofs of superior enterprise, and so good an example. The Normans showed more care for the matter than their kindred invaders, but intestine and foreign wars, feudal oppression, and the ambition of power which characterised their advent, reign, and even declining influence, left little opportunity for cultivating the arts of peace. With the revival of mining arose the new era of British wealth and power. Our mines, including all sorts, metallic and non-metallic, were really the means of founding that navy which swept the seas of every enemy, from the wars about pepper with Dutch and Portuguese in the Eastern seas, to the bombardments of Odessa and Sebastopol. There is no reason to believe that England, or the world, would have the advantage of railroads but for mining and miners. Who invented the railway system? A poor Northumbrian miner! Some dispute this, and attribute the discovery to a Cornish mining engineer. For what did either of these men desire the railroad? The first in order to convey coal from the pit's mouth to the Tyne, the Weir, or the large towns of Northumberland and Durham; and the latter for the conveyance of Cornish metallic produce from the mines to its proper depositories. George Stephenson's ideas and ambition were at first directed to the more speedy, cheap, and abundant conveyance of coal from the pit to its customary destination. He afterwards saw the advantage of the system for conveying passengers, mails, expresses, light parcels, cattle, provisions, &c. So that our cheap postage, our well-stocked markets in large cities, and especially in the metropolis, our administration of justice by the more ready pursuit of delinquents, and all the advantages of facile and swift communication, had their germ in the necessity of the mine, recognised by the genius, and worked out by the enterprise of a very poor pitman.

Indeed the invention and perfection of the steam-engine itself had an important connection with the progress of English mining. The invention sprung up in a mining district, where the requirements of the manufactory were not regarded as comparable in importance with that of the mine and the furnace. The importance of the invention for unwatering, for raising great weights to the surface, &c., is as great as for turning the wheels of the vast machinery which revolve under its mature power. In connection with the steam-engine the carrying trade by sea is revolutionised; passengers pass from port to port within a definite time, troops are transported with rapidity from the centres and seats of power to the extremities of empires, and to the most distant regions on the globe; and the most terrible engines of war the world ever saw sit grimly on the waters which begirt our island home, ready to pass against an enemy with the speed and certainty which steam only could supply. Thus, what at first was regarded as important for pumping a mine, or raising its contents, has become one of the most powerful material powers upon the earth. There is no department of science or art in England which has not advanced by the aid of mining. The machinery requisite for the most ponderous and the most delicate manufactures alike comes mainly from the mine, the forest is made tributary to but a small extent now. The tints and dyes of the print-yards of silk, cloth, and cotton owe their beauty to a large extent to the homely looking matter that is brought from the mine, although the vegetable world still supplies the dyer and the house or ship painter with some of their hues. The artist also derives from the mines means of marking, in colours of truth and beauty, the objects of nature, or the ideal of his own conceptions. The physician finds supplies for the *materia medica* in mineral substances. The surgeon is aided in the most responsible and dangerous operations by the hardness, polish, point, inflexibility, flexibility, or other qualities of the mineral substances of which his instruments are formed. We use the metals, even the humbler ones, still as coinage; perhaps in a more advanced civilisation other means may be adopted as media of currency. Thus, turn our eyes upon the civilisation of England in whatever direction we may, mines, mining, and miners stand in the front rank associated with it.

Ever since the revival of mining discovery, industry, and adventure, England has grown in commerce, wealth, and power. She feeds her own furnaces and engines, sheaths her ships with her own copper, and builds them with her own iron, and fabricates from the bowels of her own rich realm the tools and the engines which change the forms of so many substances, erect so many structures, and fabricate so many articles of utility and beauty; and for all this she finds the moving power in the vast carboniferous treasures of which Providence made her the richest storehouse in the world. England is the most singular country on the globe, in a geological point of view. In all other lands there are formations of particular characters over greater or less ranges, but England is an epitome of the geological world. Here almost all formations may be seen within a limited zone from east to west, so that students of the science, who wish practical observation, come hither from all lands. Thus scope and opportunity were given to us to turn Nature to account, and work with her to a more elevated civilisation, wider influence, and sterner power. Accordingly as England wrought her fields of coal and iron, she found uses for them in the steam-engine, the rail, the iron ships, &c.; and *these uses* brought out her practical aptitudes, her intellectual capacities, her indomitable will, and rewarded her with the wealth which fills her multitude of cities with industrious crowds, and makes her capital the metropolis of the world. As mining is, so is the civilisation of ages and nations. This, at all events, we, as a people, cannot ignore. He, therefore, who assists by his skill, energy, and capital in developing this great industry, is adding to the comfort, wealth, and power of the British people, and building up for Britain a still more glorious and lasting renown. T. SPARGO.

Gresham House, London.

DYFNGWM MINING COMPANY.

SIR,—In the common interest of Mining, may I ask you to devote space for the publication of the following report of the extraordinary proceedings, which took place at our meeting on Tuesday? I may add, that all that was required was that attention should be paid to the interests of the proprietors: had the report of the Committee of Investigation been considered, and some necessary information been communicated, the dissentient shareholders would at once have bowed in deference to numbers, and have acted in good faith with the majority. EX-OFFICIO.

At a meeting of shareholders in this company, held on Tuesday, at the office, 20, St. Helen's-place, Bishopsgate, the following extraordinary proceedings took place:—

Mr. HADLEY (addressing the reporter): Who are you, Sir? What is your name?——The REPORTER: I am a reporter.

Mr. KELLY: It is in the interests of this company, and of the public generally, that the proceedings of this meeting be reported.——Sir CLAUDE SCOTT: I object to it.——Mr. HADLEY: No person can attend this meeting who is not a shareholder. It has always been held so by the company.——Mr. KELLY: No matter how it has been held by the company. It is unconstitutional and illegal, under the present circumstances, to exclude the reporter.

Sir CLAUDE SCOTT: The shareholders have a right to insist upon there being no reporter present.——Mr. HADLEY: At railway meetings they are only admitted by courtesy. I have been present when they have been required to withdraw.——Mr. WHITMORE: I move that the reporter be requested to withdraw.

Mr. KELLY: The meeting is not constituted at present.——Mr. HADLEY: Nor can it be whilst there is a stranger in the room.

Mr. COBB: To constitute the meeting, I will move that Sir Claude Scott take the chair.——Mr. WHITMORE: I second that.——Mr. KELLY: I protest against Sir Claude Scott taking the chair, and for these reasons——

Sir CLAUDE SCOTT: The same reasons that we had on a former occasion.——Mr. KELLY: It matters not that they are the same reasons I gave on a former occasion. They are applicable now.

Confusion and interruption here ensued, during which Mr. HADLEY requested the reporter to leave the room, declaring that it was his room, and that the business could not proceed whilst the reporter remained.—To the Reporter: I must request you to leave this room.——Mr. KELLY: It is at your peril to interfere with him.——Mr. WHITMORE interposed that he had seconded the motion for Sir Claude Scott to take the chair.——Mr. KELLY was again about to protest against the motion, when Mr. WHITMORE interrupted by exclaiming, in an excited manner, I protest against any gentleman introducing a reporter here, contrary to our custom, and to the usage of every other similar meeting.

Mr. HADLEY again remarked that it was his room in which they were assembled. He paid for it.——Mr. KELLY: As shareholders of the company, we pay for the use of the room.——Mr. HADLEY: You don't.——Mr. COBB: He (Mr. Kelly) wants to overbear us.

Several now spoke at once, and subsequently Mr. KELLY gained a hearing, when he spoke, as follows:—This meeting has before it a resolution that Sir Claude Scott do take the chair. I object to that resolution, and now proceed to state my reasons. I doubt not Sir Claude Scott possesses many estimable qualities, and I do not derogate from them. But this I do say—Sir Claude Scott has compromised himself in regard to the confidence of the shareholders of this company, in that whereas on May 24 he was accessory to the appointment of a committee for the investigation of the affairs of the company, before a fortnight had elapsed he lent himself to help to quash the committee of investigation, and to wind-up the company! There are some offences washed white by frequency, but I hold this to be an offence against usage and propriety, altogether without precedent, therefore, on this ground I object to Sir Claude Scott taking the chair.

In reply to a remark by Mr. Cobb, Mr. KELLY said he was not overbearing, nor would he be overborne.——Mr. COBB wished someone to move that the reporter be not permitted to remain.

Amidst further confusion, Sir Claude Scott took the chair, when Mr. KELLY moved that it is expedient that the proceedings of this meeting, in which the company generally are interested, be reported, and that, therefore, the reporter be permitted to remain and execute his office.——Mr. BEGBIE seconded this.——Mr. WHITMORE moved, and Mr. COBB seconded, that the reporter be asked to leave the room.

Sir CLAUDE SCOTT put Mr. Kelly's motion, for which Mr. Kelly, Mr. Begbie, and Mr. Young voted. For Mr. Whitmore's amendment five voted—Sir Claude Scott, Mr. Whitmore, Mr. Hadley, Mr. Cobb, and Mr. Hadley, jun.

Other desultory remarks ensued, during which Mr. Hadley, jun., held the reporter's note book, erasing some of his notes.

Mr. KELLY finally, amidst great clamour, read the following protest, signed by himself and Messrs. Begbie and Young:—

"20, *St. Helen's-place, Aug.* 20.—A reporter having attended this meeting, to report the proceedings in the interest of the shareholders generally, and those shareholders who are endeavouring to wind-up the company having carried a resolution for his exclusion, contrary to all justice and propriety, we, the undersigned shareholders, protest against the proceeding of the meeting, and now withdraw, declaring the conduct of the same to be illegal."

During the reading of this document, a shouting was kept up by the opposition party, who vainly tried to prevent Mr. Kelly being heard. When he came to a close, he delivered the paper to the Chairman, accompanying it with another general protest against the object of the meeting, such as was presented at the former meeting of the shareholders. The dissentients appeared to be acting on legal advice. The last-named protest was in these words—certainly not of light import:—"As shareholders in the Dyfngwm Mine, we hereby renew our protest against the registration of the company as an invalid procedure, under the circumstances, and we also protest against any measure that may be taken to wind-up the company. We further put on record our conviction that to declare such measure to be advisable, whilst the report of the investigation committee, appointed on May 24, has not been even discussed, is to proceed in the dark, and to endeavour to force on the shareholders a foregone conclusion to the prejudice of their property, and to the concealment of the gross mismanagement of the same by the finance committee."

Upon the handing in of these two protests, Mr. Kelly, Mr. Begbie, and Mr. Young withdrew from the room with the reporter. An injunction against the dominant party will be now applied for, we hear, without delay. Certainly, so far as facts have transpired, the conduct of the finance committee, in evading all discussion of the report of the investigation committee, to whose appointment they were a party, their endeavour to wind-up the company *in the dark*, as it were, and the exclusion of the reporter to let in light on the subject, by a record of the proceedings—these facts are *prima facie* against the finance committee. They give to mining operations an *underground* aspect, in another sense than the literal one.

MINING IN WALES.

SIR,—Might I ask Mr. Nicholas Ennor in what part of the United Kingdom he supposes Minera Mine, Talargoch Mine, Macs-y-Safn Mine, Nant-y-Mwyn Mine, the Van Mine, Dyliffe Mine, and the Anglesea Copper Mines to be situated? They are usually supposed to be in Wales, and among them are the most profitable mines in Great Britain. He seems to imagine that the Principality is conterminous with the county of Cardigan. J. R. R. KEANE.

Bridgewater Chambers, Brown-street, Manchester, Aug. 19.

CORNISH PUMPING ENGINES.—The number of pumping-engines reported for July is 23. They have consumed 1667 tons of coal, and lifted 13·0 million tons of water 10 fms. high. The average duty of the whole is, therefore, 52,600,000 lbs., lifted 1 ft. high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Cargoll Mines—Michell's 72 in.	Millions	66·3
Chiverton Moor—70 in.		65·0
Cook's Kitchen—60 in.		53·3
Dolcoath—Harrictt's 60 in.		52·8
Great North Downs—Sleggan's 70 in.		52·7
Great Work—Leed's 60 in.		60·7
North Roskear—Doctor's 70 in.		55·2
South Wheal Frances—Marriott's 75 in.		55·0
West Chiverton—Hawke's 80 in.		68·8
West Wheal Seton—Harvey's 85 in.		75·4
Wheal Seton—Tilly's 70 in.		64·7

SILVER IN CHILI.—With regard to the yield of the silver mines in Chili, it appears from a statement of Mr. Murray, the Vice-Consul at the port of Caldera, that the produce of silver during the past year has been about stationary. Chanarcillo (the chief district) has fallen of; but the district of Lomas Bayas, having now several rich mines in its neighbourhood, has fully made up for the deficiency. Most of the silver, which formerly was shipped in the ore, is now exported in the shape of bar silver. This change has been brought about by an improved system of amalgamation. Formerly none of the ore which contained either arsenic or antimony could be made available on the spot, but had to be conveyed to Europe in order that the silver might be extracted. Within the last 12 months the system employed in Europe has been introduced in a modified form, and with such successful results that hardly any silver remains in the ore after the operation has been gone through. Owing to this improvement the miners is a gainer, not only by not having to pay carriage from the mines and sea freight on ore which frequently contained but a very small percentage of silver, but likewise from the circumstance that a great amount of ore which would not bear removal from the mine can now be amalgamated on the spot.

Meetings of Mining Companies.

THE MID-WALES LEAD MINING COMPANY.

The recent successful introduction of this enterprise induced a desire on the part of those interested in the promotion to afford all who had become associated with it an opportunity of personally examining the property, and thus to acquire on the spot every available information upon the resources of the district, as bearing upon the mineral capabilities of their own mine; and certainly the marked success of the whole proceeding fully attested the way in which it was appreciated by all concerned. Hitherto, that which may be designated the Mid-Wales mining district, although comprising within its limits several productive mines, has laboured under the great disadvantage of an absence of railway communication; but the opening of the Mid-Wales Railway has imparted an impulse to the employment of capital in the development of the mineral resources of this heretofore comparatively neglected district. The Mid-Wales Lead Mines (or Cwm Fron and Altifus) have up till now formed a part of the successful Brynpostig sett, and the shareholders in the Brynpostig Company have expended a considerable amount of capital on that portion of their property. As the vendors have agreed to accept as purchase money paid-up shares for nearly the whole of the amount, it is certain that they are quite content to depend upon the result of its future development for a return upon their outlay.

Among those who visited the mines on Monday last were Colonel Boulderson (Madras army), Chairman of the Mid-Wales Lead Mining Company; Mr. Job Taylor, of Dixon's Green, Dudley, Chairman of the Brynpostig Lead Mining Company, and director of the Mid-Wales Lead Mining Company; Mr. William James Lindsay (Messrs. Grant, Kemshead, and Co.), London; Mr. Joseph Nightingale (late of H. M. Civil Service), London; Mr. H. Crump, of Piccadilly, director of the Paraguassu Steam Tramroad Company (Limited), directors of the Mid-Wales Lead Mining Company; Mr. Samuel Harley Kough, solicitor, Shrewsbury; Rev. L. R. Jacob, of Llanfair, Montgomeryshire; Rev. Thompson Stoneham, vicar of Kettley, Shropshire; Mr. W. C. Bew, of Liverpool; Capt. John Kitto (manager of Brynpostig and Mid-Wales Mines), Shrewsbury; Captain S. Kitto (resident manager at Brynpostig Lead Mine), Llanidloes; Mr. James Frost, ironmaster, Dudley; Mr. John Owen, solicitor, Dudley; Mr. John Pearson, jun., Stourbridge; and Mr. A. Ross (Messrs. Ross and Co., sharebrokers), Nicholas-lane, London, &c. A careful inspection of the underground workings was made by the party, and the large piles of rich lead ore attracted great attention.

At the meeting, which was held after the visit to the mines, it was unanimously agreed that Col. Boulderson (as the chairman of the Mid-Wales Lead Mining Company) should occupy the chair; and Mr. Job Taylor (of Dudley) was voted to the vice-chair.

The Chairman expressed, on behalf of the directors of the Mid-Wales Company, their perfect satisfaction with the result of the day's proceedings. The merest tyro in mining could not fail to have seen that, with the judicious expenditure of a comparatively small amount of capital, in addition to that which had been so successfully expended by the Brynpostig Company, the discoveries which had been made would be profitably continued. There were so many present, however, who could communicate valuable and interesting information as to the mineral capabilities of the district, and more particularly of the value of the property in which all present were immediately concerned, that he would for the time content himself by expressing the pleasure the directors of the Mid-Wales Company felt in being in a position to state that the intrinsic value of the property in every way far exceeded their most sanguine expectations.

Mr. S. Harley Kough said he might inform his co-adventurers he came into this neighbourhood prospecting a few years since, and having visited Cwm Fron (now Mid-Wales), and then the property of the Brynpostig Company, he determined to take an interest in it. The lode discovered produced some 2 to 3 tons of ore per fm., and the reason it was not followed, although as it was opened out the lode gradually improved, was because the water increased so rapidly upon them. As the gentlemen present had that day seen, a deep adit had been driven to intersect the lode at a deeper point. Three important lodes had been proved to exist, and two of them were of an exceptionably favourable character. All he could say was that his confidence in the mine was exceedingly great; and he trusted, as he believed, they would be rewarded for their enterprise in continuing its development.

Capt. John Kitto (the manager) said it afforded him great pleasure in meeting upon this occasion the several influential gentlemen he saw around him. He had long held it to be an important feature in connection with the initiatory proceedings of any mining enterprise that those who had become associated with it should have an opportunity of personally examining the property, so that, guided by the information they could thereby gain, they were able to form for themselves an opinion as to the value and capabilities of the undertaking. (Hear, hear.) He did not hesitate to say that upon the present occasion they met under no ordinary circumstances. He had several times met parties of a similar description—that is to say, upon the commencement of the development or re-development of mines, but he was free to confess that on no one occasion had he met any body of gentlemen under such favourable circumstances as at the present time. (Hear, hear.) Much had been said and written about mines in and about the Llanidloes district; some had theorised that they would not make rich in depth, while others held an entirely opposite opinion; but if they looked around them for a radius of three miles, they would find that so far as was developed the lodes had borne, and were continuing to bear, in depth. But it was to be remembered that the district had heretofore laboured under great and peculiar difficulties and disadvantages, owing to the want of available railway facilities, which had not only acted as a check to the development of its mines, but had materially increased the expenditure in connection with those in operation, by which they had been adversely affected as compared with other mining districts. The result of his investigations during the past two or three years had led him to the conclusion that this at present comparatively untried district would, when developed to the extent that its merits warranted, prove to be equal to any lead district in the Principality. (Hear, hear.) The Pant-y-Clawdd and other mines had returned immense profits, and although the Bryntail had not done so, it certainly was not the fault of the mine, but rather of the tardy way in which the operations were conducted. Then, there were the Van Mines, which were returning 80 tons of ore per month, and there was no doubt that when sunk below the adit level the returns would be considerably increased, those now made being returned from and above the adit level alone. Then there was the Brynpostig Mine, where there had been a level driven for 500 or 600 fathoms. There was every reason to believe that considerable returns were made from the ground opened out, but as the former workers had no machinery, save wooden pumps, they were unable to continue their operations below the adit level. This mine, he was pleased to say, was opening out very successfully. Ore was being produced in considerable quantities, and of a paying quality. He was quite certain that Brynpostig would soon prove itself to be a great and highly remunerative mine. (Hear, hear.)——Mr. Kough asked how many fathoms of ore ground had been opened out?——Capt. Kitto replied about 50 fms., which was quite sufficient to justify them in erecting the machinery for a full and vigorous development of the property.——Mr. Kough asked if the lode had improved between the adit and the lowest point yet reached?——Capt. Kitto said it had increased in value something like one-half, and the deeper they went the more productive the lode became. (Hear, hear.) He would now leave Brynpostig, and refer to the mine whose interest they had this day met to promote, which, although last, was certainly not least. The lode at Brynpostig was rich, but it was not nearly so large or powerful as that at the Mid-Wales Mine. In the shaft at the top of the hill the lode was very large and very productive, and from which large returns of lead had been made. The operations were continued as long as practicable, until the water became so quick, and, not having any machinery, it was decided to commence the deep adit, which had been driven about 100 fms., and at least half that distance had been ore ground. In some places it would average from ½ ton to 1 ton per fathom, and in others as much as 2 tons of ore per fathom; and, from the general characteristics and formation of the lode, as seen by the present driving, he had the greatest confidence that it would gradually improve in value as the depth was increased. The course of ore worked at the shaft at the top of the hill was at a very shallow depth, and the object for which the deep adit was started had never yet been attained, which was to reach that bunch of ore. Taking it as a whole, it would average from 4 to 5 ft. wide, and seldom without ore; and there was more than ever reason to believe, from the general prospects and the marked character of the walls of the lode, that it would become more than usually productive in depth, and that the Mid-Wales Mine would be second not only to none in the neighbourhood of Llanidloes, but in the Principality. (Hear, hear.) It might be considered that he had taken a sanguine view of the Mid-Wales Mine, but from the experience he had had in other mines, and comparing those mines with Mid-Wales, he certainly did not think that his opinion was in any way sanguine, for he unhesitatingly believed that within three months after the machinery was erected very respectable returns would be made, sufficient to at least meet the current costs, which, he need hardly say, was a position which but very few mines occupied even after they had been some years in operation. (Hear, hear.)——Mr. Job Taylor asked Capt. Kitto if the gentlemen present were to understand that within three or four months after the completion of the erection of the machinery returns would be made?——Capt. Kitto said he computed that it would take about three or four months to drive the deep adit up to the bunch of ore which was discovered in the shaft, and when that was done their returns would, of course, be considerably increased, as from the deep adit up to the bottom of the shaft there were at least 50 fms. of ore ground. If it should be as good as represented, which he believed would be the case, there was every reason to believe that very large returns would be made from that bunch alone. (Hear, hear.) And, of course, there would be other bunches of ore discovered of equal, if not of greater, value to those already discovered, in which case the returns would be very considerable. He could only repeat that he fully believed when the Mid-Wales Lead Mines were developed they would prove themselves to be equal to any lead mines in Wales. (Hear, hear.) In reply to questions, he stated that he should propose to the board to erect the same size engine for crushing and pumping as that at Brynpostig, but he hoped to be able to make it pump, crush, and draw.——Mr. Ross asked if there was not a level on the other side of the hill, in the Altifus Mine, which was also the property of the Mid-Wales Company?——Capt. Kitto replied in the affirmative, and stated that in that level there was a very strong lode, similar to that in Cwm Fron. Other levels had been driven on another lode, which, although very shallow, yielded spots of ore.——Mr. Job Taylor said some of the ore was an inch thick, perfectly solid, and the lode had well-defined walls. The various branches cut would act as feeders to the main lode.——The Chairman said he was sure the gentlemen present would be glad to hear some remarks from Mr. Job Taylor, who had had considerable experience in this and other districts, and by that experience had realised the most successful results. (Hear, hear.)

Mr. Job Taylor, on rising, was received in the most enthusiastic manner. He said that it afforded him much pleasure in meeting upon the present occasion his co-directors and co-shareholders. Captain Kitto had referred to the time when he first became interested in this district, and he (Mr. Taylor) might inform them that Captain Kitto's first visit was to inspect Brynpostig and Cwm Fron setts, the latter of which was now the property of the Mid-Wales Company. He (Mr. Taylor) had been connected with these mines for many years, and he and the party with whom he was associated determined to work them together. As far as developed Cwm Fron had proved itself to be certainly the better property of the two, and the best evidence of their opinion was that they had made an expenditure of some thousands of pounds for the unwatering of that part which had been worked—a fact which alone showed that they regarded Cwm Fron (now Mid-Wales) as their chief mine; and, moreover, they were perfectly satisfied with that property as far as opened out. There was no doubt that had they, instead of attempting to develope it in the way they began, by means of hand tools and such like appliances, put up proper machinery at the top of the hill, by this time Cwm Fron would have been in a remunerative condition. They began their expenditure in that way, and so continued it, but after all only one of the pipes of ore that had been discovered was, *per se*, quite sufficient to justify the whole of the outlay that had been made; indeed, he had no hesitation in saying that the ore they had seen that day proved that the expenditure was not only justified, but that the result was satisfactory. (Hear, hear.) As stated by Capt. Kitto, the object for which the deep adit was commenced—the reaching of the pipe of ore gone down in the bottom of the shaft—had not yet been attained, but independently altogether of that there was reason to believe that in the intermediate distance three or four other veins of equal value would be met with. Taking these facts into consideration, it was not too much to say that at the present time no accurate idea could be formed as to the amount of profit likely to be realised. (Hear, hear.) When it was first suggested that either Brynpostig or Cwm Fron should be disposed of, a great difference of opinion prevailed among his co-directors. Some strenuously advocated the continuing the development of Cwm Fron—indeed, Mr. Kough, to use his own words, "would sell his coat off his back rather than part with Cwm Fron." (Hear, hear.) On one hand the general opinion among the directors was, that as Brynpostig could be sold at a price, they would rather sell that and go on with Cwm Fron; but on the other hand, as they were quite capable and willing to contribute towards the expenditure of developing Brynpostig without bringing others in, while sufficient had been seen to prove that they had a mine, it was urged that they should take upon themselves the expenditure of something like 6000*l.* So that, rather than that the whole property should be made into what might be called a "market mine," they determined to sacrifice Cwm Fron and work Brynpostig. They had never thought less of Cwm Fron than of Brynpostig; the only thing was they felt that the expenditure of 3000*l.* or 4000*l.* would be necessary, in addition to the 5000*l.* or 6000*l.* in connection with Brynpostig; but, so far as he was personally concerned, he, as the largest shareholder, would rather have found his proportion of the additional capital, and kept Cwm Fron, in connection with Brynpostig, than have parted from it. Such was his feeling with regard to the Mid-Wales Mine. (Hear, hear.) He thought that had they had Capt. Kitto as their agent from the beginning it never would have become the property of the Mid-Wales Company: but, as it was now their property, he had no hesitation in saying that, under Capt. Kitto's managership, Cwm Fron would be successfully developed at a reasonable cost. He did not mean if they paid the directors, &c., large sums of money for attendances, but if nobody were paid anything except for what they did, and that what they did was absolutely necessary. (Hear, hear.) If Cwm Fron were conducted on that plan, he had no doubt in the world but that it would soon be brought into a dividend-paying condition. Let the directors do their duty, and show confidence in the undertaking; and let them rest upon the shareholders to vote their remuneration. That was the principle upon which the Brynpostig Mining Company had been conducted, and he should not consent to continue to be a member of the Mid-Wales board unless it were upon a similar understanding, although he was perfectly willing to continue if that principle were adhered to. (Hear, hear.) And he would, moreover, state that so far from selling a share (which was not his practice when he entered into any enterprise), he would rather increase his holding in the Mid-Wales Company. Years ago, as he had already said, he and others began its development, with the impression that they possessed a good thing; and certainly nothing had since occurred to alter that opinion; on the contrary, what they had seen this day not only confirmed that opinion, but induced the belief that it would prove in the end a much more valuable property than the Brynpostig Mine. (Hear.)

Mr. Kough said that he had carefully perused the Articles of Association, and he had much pleasure in stating that the directors' remuneration was to be voted by the shareholders. (Hear, hear.)

Mr. Owen (of Dudley) expressed the greatest confidence in the value of the Mid-Wales Mine. Too much could not be said in favour of directors visiting their property, and satisfying themselves that everything was being properly conducted. His confidence in the Mid-Wales Company had been considerably strengthened by the fact that the gentlemen who had come forward as directors had determined to visit the mine for their personal satisfaction, and to see whether what had been represented to be the case was borne out by facts. He was sure what they had seen had more than satisfied them, whether as regards the mineral value of the property or the facilities it possessed of being economically developed. He recollected that some two years since, upon returning from the Isle of Man, he visited the Cwm Fron Mine, when he was particularly struck with the striking and peculiar similarity of the stratification of the ground in Great Laxey and Cwm Fron; and he was now more than ever convinced that, with a comparatively small expenditure of capital, Cwm Fron would prove a great and highly remunerative mine. He fully believed that with the expenditure of not more than about 3000*l.*, the Mid-Wales Mine could be made a good dividend-paying property. (Hear, hear.)

Mr. Job Taylor said it would, no doubt, be satisfactory to the Mid-Wales Company to know how Capt. John Kitto had become associated with mines in this district. Of course they all knew that Capt. Kitto originally was at the Great Laxey Mines, and here he (Mr. Taylor) might mention that, having the same opinion as that expressed by Mr. Owen with regard to the precise similarity of the stratification of Great Laxey and Cwm Fron, he made it his business to go to the Isle of Man; and, after making enquiries, he felt if they could only get Capt. Kitto to periodically visit their mines they would soon be brought into a much better condition. A deputation of Brynpostig directors subsequently visited the Isle of Man, and during a period of three weeks ample opportunities were afforded of seeing how Capt. Kitto conducted his business, how he kept his books, and how he conducted the works at Great Laxey, the result being that he recommended the directors to ask the Great Laxey directors to allow Capt. Kitto to thoroughly inspect the Brynpostig and Cwm Fron once in three months, in order that they might have the benefit of his advice. The answer received from Mr. Dumbell (the Chairman) was that Capt. Kitto should not be allowed to inspect the mines either once in three months, six months, nor twelve months. Thereupon he (Mr. Taylor) went over to the Isle of Man again, and called upon Mr. Dumbell. He (Mr. Taylor) during the conversation which took place, suggested to Mr. Dumbell that to allow Capt. Kitto to inspect other mines might perhaps prove to be beneficial to the Great Laxey Company, inasmuch as not being allowed to visit other mines his knowledge would become merely local and stultified, and he further stated that he (Mr. Taylor) had had to visit some thirty or forty collieries belonging to different employers, neither of whom was injured by his so doing, but, on the contrary, by the general information he thus was able to gain he became more competent to fulfil his duties. Mr. Dumbell said it was no use mincing the matter, the directors in the Isle of Man and the directors in London had determined that Capt. Kitto should not go a day anywhere to inspect. He (Mr. Taylor) replied, in language more expressive than graceful, by saying—"If we cannot have a piece of him we will have the whole of him, and I hope you won't blame me in the end. I shall go and consult Capt Kitto, and shall endeavour to induce him to send in his resignation, and take him to ourselves, as I believe it will be greatly to our benefit to do so." That was the reason Capt. Kitto left Great Laxey, and was now associated with these mines. (Hear, hear.)

Capt. Kitto said he had from the first been struck with the great similarity of the ground in Great Laxey and Cwm Fron Mines, but had refrained from adverting to it on account of the great distance between the two mines. As, however, Mr. Taylor had referred to it, he (Capt. Kitto) could only say that in all his experience, which had now been for upwards of 26 years, he had never seen two lodes more alike in their general composition and mineralogical conditions than those in Great Laxey and the Mid-Wales Mines. (Hear, hear.) The Brynpostig lode, although richer in its composition, was very dissimilar; but the lode in Mid-Wales was, so to speak, the counterpart of that in Great Laxey. (Hear.)

Mr. Kough said that one of the most tangible evidences of the value of Capt. Kitto's practical administration at Great Laxey was that under his agency the mine commenced to pay dividends, and that when he accepted the office the shares were marketable at not more than 3*l.* 10s., but that when he left they were readily negotiable at something like 21*l.* per share. (Hear, hear.)

Mr. Ross (who, on rising, was received with the warmest acclamations) expressed his entire satisfaction at the result of the day's proceedings. He need hardly say that in times like the present it was no easy task to introduce capital for the development of mines, however valuable those mines might be; and, therefore, when he informed them that not more than two months had elapsed since he undertook to introduce the Mid-Wales Mine to his friends, and that up to the present time something like 2000 shares had been subscribed for, the meeting would give him the credit of at least having accomplished that which but few men in the City of London could accomplish in the present day. (Hear, hear.) He did not desire to take the whole of the credit to himself, for he knew that he had associated himself with men of influence, position, and practical reputation, and whose names alone had materially contributed to the success achieved; but it might be accepted as only another instance that when a really *bona fide* enterprise was placed—and what was primarily important, properly placed—before the investing public, the necessary capital would never be wanting. He was fully aware that too much caution could not be exercised in the selection of any enterprise, and more particularly in any mining enterprise; and therefore it was that upon the present occasion it afforded him peculiar satisfaction to find, however certain he had previously been of the great mineral value of the Mid-Wales Mine, that what they had this day seen and heard so far exceeded every computation he had hitherto made. Replying to numberless communications he had received, expressing a dubious opinion as to the property being what it was represented, he (Mr. Ross) had said—Come and see it for yourselves, and the present meeting was the result. (Hear, hear.) There would no longer remain any doubt as to the property becoming equal in productiveness to any in the Principality; and that every detail, however small, would be carried out efficiently, was guaranteed by the fact that Mr. Job Taylor was a member of the board, and that Capt. J. Kitto was the manager. (Hear, hear.)

Mr. Nightingale said that, as far as he was able to judge from the appearance of the mine, there seemed no doubt that, with an economic management the Mid-Wales would prove a great and permanent success.——Mr. H. Crump said he had felt the greatest satisfaction in having visited the mines, but that satisfaction had been considerably increased by the able and lucid remarks which had fallen from the practical gentlemen now present. He attached the utmost importance to the able statements that have been made by Mr. Job Taylor, whose great mining experience and commercial *prestige* entitled his opinion to be regarded with unqualified respect. (Hear, hear.) He was satisfied the directors would work together harmoniously, by which the interests of the enterprise would be promoted. What he had seen that day perfectly satisfied him that they possessed a very valuable property; and he only hoped, as he believed, that an early success would be realised. (Hear, hear.)

Mr. Lindsay said that, previously to visiting the mine, he never for one moment entertained the smallest doubt as to its intrinsic value, placing, as he did, such implicit confidence in those from whom the property was acquired. Since he had heard the practical observations of Mr. Job Taylor—who, he was glad to find, was to act as one of his coadjutors upon the board—and also of Captain Kitto, he (Mr. Lindsay) need hardly say his previous confidence in the valuable character of the Mid-Wales Mine was very considerably increased. There could be no question that all who had invested, or were about to invest, their capital in this property would eventually reap a large and permanent reward. (Hear, hear.)——Mr. Job Taylor said he was satisfied everything had been shown the gentlemen who had visited the mine, and every explanation given, but after all, the best had not been represented to them.

The Rev. M. Stoneham said it had afforded him very great pleasure to have had an opportunity of meeting the gentlemen he saw around him. He had been connected with mines and stone quarries from early life, which he was glad to say he never had had cause to regret. Of course, he had made losses, but if he were to draw out a balance-sheet it would show that he had very considerably benefited by his connection with such investments. In addition to a considerable interest in his own private properties, he had been connected with gold, and silver, and lead mines, slate quarries, and collieries. He must say the clergy of the Church of England were a very enterprising body, and why, he would ask, should they not be? He was interested in one mining enterprise, in which many of his personal friends, highly connected with the Church, were associated, and he understood that there were also many connected with the Mid-Wales Company. The clergy were tied and bound down in many ways, but they could legitimately associate themselves with any *bona fide* enterprise. His advice was not to go into mining unless spare capital was possessed which could be afforded to be lost; its employment might bring in return a great prize, or it might be an entire loss. As to the Mid-Wales Mine, he had every reason to believe it would prove a success. He was an original promoter of the Brynpostig Mine, about three and a-half years since, but at that time it was not thought so much capital would be required as had proved to be the case. And as it would have absorbed a still further amount had they kept the whole of the sett to themselves, although some were strongly in favour of so doing, it was agreed to let others in, to continue the development of the property which the Brynpostig party began, and certainly would have continued but for the reasons he had stated. Each had that day spent a very pleasant, interesting, and instructive one in the investigation of important facts. Every piece of ore they saw around them in this district of "everlasting hills" showed that in those hills there were veins of wealth, exhaustless, and, therefore, everlasting. (Hear, hear.) All he could say was that, with confidence in the directors and management, he believed every shareholder in this undertaking would be rewarded, and more than rewarded, for his enterprise.

The Rev. Mr. Jacob said there could be no question that as this district had become more easily accessible by railway communication, the mineral wealth contained in its "everlasting hills" would now be more extensively developed. As to the Mid-Wales Mine, he knew it was freely discussed as to whether it should be parted with, for the Brynpostig party were fully cognisant of its value, and he believed the Mid-Wales Company had, as far as human probability could calculate, every prospect of success.——Capt. Kitto said that, considering Brynpostig had been brought into a paying condition, the capital expended, although, perhaps, somewhat in excess of the amount estimated, was very small. He said that the expenditure of 6000*l.* to test two such mines was absurdly small; 20,000*l.* or 24,000*l.* had been in some cases expended without a result, but here they had a result with a much smaller expenditure, and a result which would show these mines to be superior to any in which they had been interested.

Mr. Bew said he had been underground at Mid-Wales, and he was certainly very much pleased with the general character and appearance of the lode. It was not the first time he had been on the mine, and he had no hesitation in saying that no miner would express an opinion other than that very great results might be confidently expected in depth. He should only be too glad to increase his stake, as also, he had no doubt, would be his friends in Liverpool.

Captain Sampson Kitto said there could be no doubt that Mid-Wales would prove a very productive mine in depth; as soon, indeed, as they got below the base of the mountains he believed it would begin to be productive. It was a great champion lode, which he believed would depart from the other lodes, and could not fail to make the Mid-Wales Mine a large and highly remunerative enterprise.—Votes of thanks were passed to the Chairman and directors, and to Mr. Ross and Capt. John Kitto, which concluded the proceedings.

NORTH WHEAL CHIVERTON MINING COMPANY.

The quarterly general meeting of shareholders was held at the company's offices, Gresham House, Old Broad-street, on Monday,

Mr. George Noakes, F.G.S., in the chair.

Mr. C. B. Parry (the secretary) read the notice convening the meeting, and the minutes of the last were read and confirmed.

The statement of accounts showed a credit balance of 4334*l.* 3s. 1d.

The report of the committee was read, as follows:—

The committee have the satisfaction to state that the works are progressing satisfactorily towards the attainment of the object for which the company was formed—to bring down the engine-shaft to prove the lode at the 100 fm. level. This shaft is now holed to the 80 fm. level; and it is expected that it will be squared down and pitwork fixed to resume sinking by the end of September. The engine-shaft is carried down perpendicular in the country, and will, it is believed, strike the lode at the 110 fm. level. It is, however, proposed to sink to the 93 fm. level, 13 fms. below the 80 fm. level, and then by a short cross-cut to prove the lode at that level; every effort will be made to accomplish this in the shortest time possible. The indications in the bottom of the 80, for the whole length of that level, are of the most encouraging character, such as to fully warrant the outlay proposed, and to offer every prospect of success. The committee hope that by confining the operations to the special object in view, and carrying them forward with vigour and economy—the capital subscribed will provide the means necessary for that purpose should the lode, when cut at the depth proposed, prove equal to the prospects now indicated—the most favourable results may be anticipated.

The Chairman then read the following report from the agent:—

Aug. 17.—Since the general meeting, held on May 15 last, the engine-shaft has been sunk 7 fms., and communicated to the rise in back of the 80 fm. level cross-cut, driving south of Mew's shaft, all right. The shaft and rise men, who are at present 20 in number, are engaged in squaring it down to its proper size, as per contract, set on survey-day last—70*l.*, which will be completed by the end of the present month. We shall then case and divide the shaft, cut plat, put down and fix about 30 fms. of 11-in. main-rods, and all necessary work, preparatory to sinking below the bottom level on what is termed the 80, which is 78 fms. 1 ft. 6 in. from surface; we calculate to accomplish this work and resume sinking below in about six weeks from this time, when no time shall be lost in getting down to see the lodes 10 or 15 fms. deeper. The 80 has been driven west of Mew's shaft, on the north part of the lode, 14 fms.; most all this drivage has produced silver-lead, especially towards the bottom of the level, in places worth one-third of a ton per fm.; the lode in the end is at present disordered by patches of killas; we think we are getting into the influence of the cross-course seen in the 50, west of this shaft; the end is being driven by two men, at 50s. per fathom. The 80, east of old sump shaft, has been driven 5 fms. 5 ft. on the north part of the lode, 6 ft. behind the present end; we cross-cut through it, and find it to be 18 ft. wide, composed of mundic, capels, a little blende, occasional stones of lead, and a great deal of quartz—a fine looking lode. Being too large to carry for one end, we have put two men to drive east, on the south part, at 80s. per fathom; and four men on the north part, at 90s. per fathom. The winze in the bottom of the 70, just over this end, has been sunk 2 fms. 4 ft., and 10 fms. stoped east, worth about 5 cwts. of lead per fathom; this is at present suspended, in consequence of having too much water; this shoot of lead appears to be making on the north part, and inclining east; we hope shortly to let down the water in this drivage by the level below, and also have an improvement in the lode. As soon as convenient we intend to sink a winze or two in the bottom of the 80, east and west of Mew's shaft, if water will allow. There is one tribute pitch working in the back of the 30 by two men, at 10s. in 1*l.* for blende and 8*l.* per ton for lead. Seeing the lode in this part of the mine opened on in the bottom level from 80 to 90 fms. in length, and cut through at various places, varying in size from 4 to 15 ft. wide, and producing lead for near all the distance, in places worth from 5 to 15 cwts. per fathom, especially towards the bottom of the level, it considerably strengthens my oft-expressed opinion that this lode cannot fail to prove profitably productive when seen at deeper levels. We have now at surface dressed, and in the way of dressing, about 5 tons of lead, 16 tons of blende, and 1½ ton of copper ores. The machinery is in good order.—W. Hancock.

The Chairman, in moving the adoption of the accounts and report, said that the committee were glad to meet their fellow shareholders, and to have so favourable a report from the agent to lay before them. It was, of course, impossible to say what the lode would produce below the 80, but he (the Chairman) fully believed that no mine more warranted the outlay of capital than North Wheal Chiverton. It would be seen by the sections that there had been between 80 and 90 fms. driven at the 80; the whole of this drivage was through a lode varying from 2 to 15 feet in width, and from the bottom of which very fine specimens of lead ore had been broken. It was gratifying to find how the character of the ground had altered as they sunk; shallow it had produced very little, and that copper; a little deeper blende was found, and now they had lead; and from the fact of the lode having lead through its whole length, he thought the indications were in favour of its holding out in depth. Such was the agent's belief. As regards the funds in hand, he (the Chairman) believed that they would be sufficient to prove the mine down to the 103, at which point they expected the shaft would cut the lode; but the committee thought it better when they were down to the 93 that a short cross-cut should be put out to cut the lode, and by that means obtain a little insight into its character. Before deciding on this step, they had consulted their agent, who was of opinion that they would be fully justified in making the outlay. They would be able to assist the proposed level by sinking winzes in the bottom of the 80, for ventilation, &c. The works at the mine were being carried out with the greatest vigour and economy, and he would sum up by saying that they have every inducement to prosecute the works. He himself held largely in the concern; and although all mines were speculations, they had, he considered, a very fair chance of being rewarded for the capital expended.

In reply to a Shareholder, the Chairman said that the June cost was not paid by the company at the time the accounts were sent out; the cheque was now drawn, which would leave a credit balance of 4010*l.* 2s. 11d.

Mr. Edward Cooke regretted that a larger number of the shareholders had not attended the meeting, but he felt it a great pleasure in having been identified with the promotion of the present company, and that every assertion that he

had then made had, so far as the present workings had been extended, been fully carried out; and he thought that so far as they had gone the works reflected great credit on the management. He (Mr. Cooke) quite agreed with the Chairman that mining could not be looked upon as a certainty; but he thought North Chiverton held out every indication of becoming a great mine, having watched the change in the ground in sinking from the 60 to the 70, and from the 70 to the 80. It must also be remembered that in West Chiverton the character of the ground altered in a precisely similar manner, and it was about the same depth as they were at present that West Chiverton cut rich. They had certainly not got the West Chiverton lode, but it was a parallel one, and but fair to infer from the present appearance that they had every chance of success.

Mr. HAMILTON asked how long it would take to get down to the 103 fm. level?

The CHAIRMAN replied about eight or nine months. The committee hoped that by the annual meeting they would have proved the loce. He might state that on his recent visit to the mine he was accompanied by Mr. Rawlinson, one of the committee, and a large shareholder, and he expressed the greatest satisfaction with all he saw.

Mr. PETER WATSON was pleased to find that the mine so far had given satisfaction. Previous to identifying himself with the present company he consulted some of the best mining agents in the county, the manager of West Chiverton, Captain Johns, and others, and they all agreed that the mine held out every chance of success, and entertained a very favourable opinion of the result when they got below the 80 fm. level. The sugary spar from that level was very similar to that found in East Wheal Rose and Old Shepherds; and it was quite possible that the lode on which they were now working might prove to be one of the lodes of those old rich mines. He (Mr. Watson) had known the district for upwards of 22 years, and was of the firm opinion that the shareholders would be fully rewarded for their outlay. The mine was surrounded by properties selling for large sums of money, some of which were not half so deep as North Chiverton. Their present engine (almost a new one) was capable of carrying them 50 or 60 fms. deeper, and he could but congratulate his fellow-shareholders on having come into possession of a property, which, in his opinion, ought never to have been abandoned, and which at no distant date he believed would prove a rich mine.—The accounts and reports were received and adopted.

Mr. GALSWORTHY asked whether there were any covenants in their lease compelling them to work the western portions of the sett?—The CHAIRMAN, in reply, said that he had hoped their solicitor would have been present, who would have answered the question, but he (the Chairman) might state that the whole of the sett, which was a very large one, was granted under one lease, and however desirable it might be to develope the western ground, the shareholders would remember that they started with the intention of proving the lode in their present engine-shaft, to which point all their energies had been directed. This working was considered sufficient to fully satisfy all the covenants of the lease, but if they chose to work the western part it could be done by a line of flat-rods from their present engine.

Mr. E. COOKE had heard that that ground was the most valuable portion of the sett.—Mr. P. WATSON said that if the company felt disposed to divide the sett he should be happy to give a fair price for the western portion.—It was then resolved, on a motion from the chair, that the manager's salary be at the rate of 130*l.* per annum, and that 10*l.* per quarter be paid to the committee for their services.—In reply to Mr. Hamilton, the CHAIRMAN said that the committee were not only regular in their attendance, but were really what a committee of a mine should be—thoroughly examining into every detail of the working. He (the Chairman) thought that their anchor had grounded in a good position, and that they possessed the confidence of the shareholders at large. He could assure them that every endeavour should be used to see that the operations at the mine were carried out with vigour, and with the utmost economy. The costs to the present time had been large, but after the present month he thought that they would be found with every material to enable them to see the 93, if not the 103.

A cordial vote of thanks to the Chairman terminated the proceedings.

DYFNGWM MINING COMPANY.

A meeting of the shareholders in this company was held on Tuesday, at which 1654 shares were represented,

Sir CLAUDE E. SCOTT, Bart., occupied the chair.

A stranger, not being a shareholder, was observed to be present, and was requested by the Chairman to withdraw, which request he, at the instance of one or two of the shareholders, did not comply with, whereupon a somewhat acrimonious discussion ensued. Ultimately, a vote for his withdrawal was passed by a large majority. Three shareholders, holding collectively 116 shares, then left the room with the stranger, who was, as they stated, a reporter brought by them. The meeting then proceeded to the business for which it was called, and a special resolution to wind-up the company voluntarily under the Companies Act, 1862, was unanimously passed

PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.

The extraordinary general meeting of shareholders was held at the London Tavern, Bishopsgate-street, on Thursday,

Mr. J. DISTON POWLES in the chair.

Mr. J. H. FIELDER (the secretary) read the notice convening the meeting, and the report was taken as read.

The CHAIRMAN said that the directors had the pleasure of meeting the shareholders under improved circumstances; they would see that the yield of gold had increased, and they were inclined to hope that that increase was attributable in a great measure to improved management. In January the results were given to Oct. 1, and since then they have additional figures, which raise the total to 361,347 tons of quartz crushed, and which has yielded a total gold produce of 202,803 ozs., or an average of 11 dwts. 5 grs. per ton. The yield of gold from the quartz has during the last nine months averaged 8 dwts. 7 grs. per ton against the previous 12 months of 6 dwts. 15 grs. per ton. The lowest monthly yield averaged 5 dwts. 9 grs. per ton in January. The highest averaged 13 dwts. 11 grs. per ton in May. The steady improvement in the yield was undoubtedly owing to the better management and working of the mine, now it has come completely under the control of the officers of this company, and the system adverted to in the board's last report of extensively sampling in the mine, which has been vigorously carried out, has resulted in not only an approximate idea of the value of the ground opened out being obtained, but has enabled the mine manager, after consulting weekly, as he now has to do, with the resident director and deputy-superintendent, to set such workings only as will pay cost, but the board are glad to add that by the latest mine report to hand, under date June 18, Mr. Munday, the deputy-superintendent, after his usual weekly inspections, states "that the better quartz has been met with in the regular course of working the ascertained payable ground." The board wish to impress this particularly on the proprietors, because they have had it brought to their notice that certain proprietors had conceived an idea that the good yields were brought about by unfair working of the mine. Nothing can be more fallacious, and the best answer is in Mr. Bland's own words (to whom the current ideas were communicated). The board are glad to be able to report the mine and reduction works all in good order of working, although constant improvements have and are being gradually made out of revenue, without being sensibly felt. The north shaft has been sunk from 464 to 570 feet, and will be down to 620 ft. very shortly. They are glad to say that the quartz passed through and stamped from these lower depths has yielded most satisfactorily, and the opening out of the cross-cuts at the 517 and 590 feet levels will prove the mine for some years to come. From the experience hitherto obtained from similar reefs at greater depths, both in Australia and California, there seems little or no doubt of good results. The board at the last meeting, with regard to water supply, stated that they trusted the Government water scheme would be carried into operation, they having raised funds here for that purpose; but they regret to state that up to the latest advices no steps have been taken to supply the important mining interests of Clunes. Mr. Bland, feeling this, and knowing that at least two years must elapse from their commencement to the necessary supply being available, and believing that the continuance of this company's operations depended on prompt measures, took the responsibility of securing and bringing in from Birch's Creek an independent supply of 2,000,000 gallons of water per diem on account of this company.

Mr. FREWER enquired how many years the water supply account had been accumulating, expressed his happiness that they were making experiments with sodium-amalgam, and enquired whether the directors sent out orders to Mr. Bland to increase the returns before each meeting, in order to be enabled to give a satisfactory report at the meetings? He had so constantly noticed these periodical fluctuations that he had really felt an inclination to move that their meetings be held quarterly instead of half-yearly.—The CHAIRMAN replied that the water supply question had arisen entirely within the last 12 months, and that the money had not been taken out of their funds, but was borrowed from the bank, and was in course of repayment. As to the use, or otherwise, of sodium amalgam, it was a matter which would be decided by those on the spot. And with respect to the question as to whether the directors sent out orders to prepare for the meetings by increasing the returns, on behalf of himself and his colleagues he repelled the imputation with the utmost indignation, and regretted that any shareholder should entertain such a notion.

The Chairman's statement was received with applause, and Mr. Frewer apologised, by declaring that the intention of his remarks had been misunderstood, and giving a new version of them. After a short discussion, the resolution for distributing the 1s. on account of the tenth dividend was unanimously agreed to, the Chairman observing that this raised the amount repaid to 87½ per cent., or 85,312*l.* 10s., since 1859.

In answer to questions from several of the shareholders, Mr. FIELDER stated that the whole of the water rights and works have been secured and effected in a manner which does great credit to the resident director and the staff under him. The outlay, which has amounted to 4640*l.*, was borrowed on the joint companies' account of one of the banks; 1140*l.* has been repaid already, and the balance will be gradually reduced. This outlay was not only absolutely necessary for the continuance of the works, but will be reproductive also by the revenue obtainable from the neighbouring companies, all of whom are desirous of having a supply from our waste or surplus water. The revenue as yet obtained from only one company is equal to 10 per cent. per annum on the total outlay.

The proceedings terminated in the usual manner.

AUSTRALIAN MINING COMPANY.

The adjourned annual meeting of shareholders was held on Tuesday, at the London Tavern, Bishopsgate-street, for the purpose of taking the votes of the shareholders, by ballot, to decide whether Mr. Cyrus Legg or Mr. Frederick Collier should fill the vacancy in the direction caused by the death of Mr. T. S. Cutbill. The chair was occupied by Colonel PALMER (the Chairman of the board), who stated that favourable accounts continued to be received from the colony of the working of the mines; and Mr. Charles Whartham and Mr. A. Cutbill were appointed to act as scrutineers. The poll was kept open from Twelve to Four, and shortly after its close the scrutineers reported the result to be as follows:—For Mr. Collier, 409 personal votes, representing 2661 shares, and 251 proxies, representing 1880 shares, making a total of 660 votes and 4541 shares. For Mr. Legg, 97 votes in person, holding 495 shares, and 286 proxies, representing 1433 shares, together 383 votes and 1928 shares: thus giving Mr. Collier, who was afterwards declared to be duly elected, a majority of 277 votes and 2613 shares. A vote of thanks was accorded to the scrutineers for their labours, and the proceedings concluded with a similar compliment to the gallant Chairman.

ANGLO-BRAZILIAN GOLD COMPANY.

The ordinary general meeting of shareholders was held at the London Tavern, Bishopsgate-street, yesterday,

Mr. HENRY HAYMEN in the chair.

Mr. JOHN E. DAWSON (the secretary) read the notice convening the meeting and the report of the directors and statement of accounts, of which the subjoined are abstracts:—

At the last annual meeting the directors fully anticipated, from Capt. Treloar's reports and the personal statements of Mr. Symons, that on this occasion they would have been in a position to have recommended a dividend, but, owing to circumstances entirely beyond control, these expectations have not been realised. The unfortunate war between Brazil and Paraguay has operated most prejudicially against the company, it having been found impossible to obtain the necessary force for efficiently carrying on the works. The information afforded by Capt. Treloar relative to the prospects of the undertaking, is of a highly encouraging nature. During the year a large amount of dead work has been accomplished, and the mines are already in a position to employ 140 borers daily. The accounts have been prepared from April 1 to Dec. 31, 1866, and have been audited by Messrs. Quilter, Ball, and Co. The remittances from the commencement of operations to Dec. 31, 1866, were 40,990 oits., the nett proceeds of which were 18,571*l.* 15s. 7d. The receipts and expenditure in England and Brazil for the nine months ending Dec. 31 was—

DR.—Balance last audit	£	2,301	16	5	
Capital received		5,896	4	0	
Gold produce		10,178	17	6	
Interest and transfer fees		98	10	0	
Sundry creditors		9,050	3	5	= £27,525 11 4
CR.—Sundry creditors, as per last balance-sheet	£	7,852	0	7	
Materials, stock, &c.		4,119	11	9	
Passagem estate		8,606	3	9	
Gold and gold troop expenses		307	17	1	
General expenses—England		1,007	17	0	
" Brazil		209	18	9	
Plant, interest, travelling, &c.		479	0	3	= £22,582 9 2
Leaving credit balance					£ 4,943 2 2

The chief mining engineer (Capt. Thomas Treloar) writes—"Though my estimates have not been realised this year, yet important works have been accomplished and important results arrived at. The deep adit has been driven to the lode, the Victoria stamping-mill completed, and, though the operations for opening out the mine are not so far advanced as we had expected, yet during the last five months we have, with the daily average of 80 borers, and without the aid of any of the great canoas, made an average monthly profit of 165*l.*, after paying all costs both in England and Brazil. If, then, a force of 80 borers raising stone worth only 2·8 oits. of gold per ton will give a profit monthly of 165*l.*, additional borers will give greater profit in proportion, because the cost of management, erection of machinery, and some other items will remain about the same whether the borers be 80, 100, 150, 200, or 300 daily. The mines are now in a position to employ 140 borers daily, and every year for many years to come space will be opened to receive constantly-increasing numbers; and this fact, coupled with the improvement which must take place in the standard of the ore, makes all here sanguine as to a long and prosperous future. In jacotinga mines very large quantities of gold can be extracted by a few hands, but it is otherwise in rock mines. In the latter the conditions essential to success are—great scope, great quarrying force, and great stamping power. I repeat, then, that the plain fact, the incubus of our present position, is the want of force, and until the unfortunate war with Paraguay is over, we shall, in all probability, be cramped in this respect. Once over, however, native labourers—and this class we prefer to all others—will flock here in great numbers. Situated as we are near Ouro Preto, the capital of the province, and the cathedral city of Marianna, the natives like this locality; but at present they are deterred from coming here, believing that recruiting is more rigorous than at a greater distance from these two cities."

The superintendent (Mr. F. S. Symon) writes that the health of the establishment has, on the whole, been good. The average number of sick daily has been but 2·03 per cent. Ten deaths occurred, including one infant and three free Brazilians. The number of hands, slaves and free, is 51 per cent. in excess of last year. Fluctuations in price of provisions have occurred owing to, at times, the heavy state of the roads. The company's troop has been of great service, and they have been enabled to feed the people during periods of scarcity for much less than they could have done had they been dependent solely on this immediate neighbourhood for their supplies.

The CHAIRMAN said it would be remembered that at the last meeting Mr. Symons (the superintendent) was present, who stated that he hoped from the produce then being obtained from the rise above the deep adit that the directors upon the present occasion would be in a position to declare a dividend. That hope, however, had not been realised, from two causes—one was the Paraguayan war, which had caused the operations to be limited, on account of the reduced force under Capt. Treloar's command; and the other was that the average value of the stone had fallen off from something like 8 oits. to about 2¼ oits. of gold per ton of ore. The result was that instead of being able to declare a dividend, as the directors had anticipated, they were not in a position to state that they were now working at a profit—that is, if they charged such items as the cost of constructing new stamps, building houses, &c., properly chargeable to plant account, but even with the reduced value of the stone obtained during last year, if they charged against the returns simply the cost of producing them, or, in other words, placed the value of the returns against the mine cost, the accounts for the past year showed a profit of more than 6000*l.* The expenditure on that account was something like 9000*l.*, while the total amount received exceeded 15,000*l.* If they obtained stone of an average yield of not more than 3 oits. of gold per ton, when their stamping-power was in full operation, he believed they would even then work at a profit. Capt. Treloar states—"If, then, a force of 80 borers, raising stone worth only 2·8 oits. of gold per ton, will give a profit monthly of 165*l.*, additional borers will give greater profit in proportion, because the cost of management, erection of machinery, &c., will remain about the same, whether the borers be 80, 100, 150, 200, or 300 daily." The mines are now in a position to employ 140 borers daily, and every year for many years to come space will be opened to receive constantly increasing numbers; and this fact, coupled with the improvement which must take place in the standard of the ore, make all here sanguine as to a long and prosperous future." In another part of his report Capt. Treloar states that "a large amount of dead, unremunerative work has been carried on throughout the past twelve months. In the forthcoming year this will not be the case; for, with few exceptions, our works, instead of being in dead killas, will be in lode which will yield gold." When the war had terminated—and those who knew anything about Brazil were of opinion it would be closed very shortly, no further difficulty would be felt with regard to labour, and the operations would be conducted upon a scale that would leave a considerable monthly profit. The cash in hand was sufficient to pay all the drafts of the company up to Nov. 6 next. Having expressed his unabated confidence in the eventual success of the company, he concluded by moving that the report and balance-sheet be received and adopted.

Mr. FOSTER seconded the proposition.

The CHAIRMAN, in reply to questions, stated that his own impression was a call would not be required, but it was impossible to say at present. If, however, a call were required it certainly would not be made this year.

The motion adopting the report and balance-sheet was received and adopted,

The retiring auditors (Quilter, Ball, and Co.) were unanimously re-elected.

The CHAIRMAN, said before the meeting separated he wished to ask the shareholders to pass a vote of sympathy to their worthy manager (Captain Treloar). It, probably, was not generally known that by the last mail intelligence was received of the death of Capt. Treloar's wife. And while upon that subject, he should like to say a few words about Capt. Treloar. He (the Chairman) had heard all kinds of statements made with reference to Capt., Treloar, but in his (the Chairman's) opinion those statements had been circulated by people who had only interest to serve, and that was their own. In his opinion the shareholders had in Capt. Treloar an honest, upright, and practical man, and one who could not be replaced by a better—indeed, he (the Chirman) much doubted if they would be able to find his equal. He moved—"That this meeting learns with deep regret the sad loss recently sustained by Capt. Treloar, in the sudden death of his wife, and wishes to convey to Capt. Treloar the expression of its most sincere condolence under his trying affliction."

Mr. HESKETH seconded the proposition, which was put and carried unanimously.—A vote of thanks to the Chairman and directors terminated the proceedings.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

GREAT SOUTH CHIVERTON continues to improve. The lode in the winze is larger than it was last week, and in every way likely to produce lead in a few fathoms sinking. It must be remembered that there are eight lodes already discovered, all running parallel to West Chiverton, and considering the large extent of the sett, it will eventually be one of the great prizes of the county. The specimens lately sent to London are really worth inspection.

BUDNICK CONSOLS is gradually improving; operations have been commenced on another lode, which is opening out highly satisfactorily; two new shafts are in course of sinking from surface on the lode, which at 5 fms. deep will pay the expenses, and leave a good profit to the adventurers; this lode can be reached from the adit by a trifling outlay, and is more than 30 fms. deeper than the shafts referred to. This work will be done forthwith, leaving extensive backs to operate upon, that cannot be exhausted for many years to come; from this and the other lodes already being worked the profits will naturally be large and continuous.

ROSE AND CHIVERTON UNITED.—We are glad to learn that the quantity of lead sold during the last two months exceeds the sales of the previous two months, being nearly 30 tons. The indications on the parallel lodes continue to be as favourable as ever, and there can be no doubt but that this will prove one of the best investments of the day.

WEST ST. IVES.—Good progress is being made in driving on the east and west lode in this mine, and the universal opinion is that at the intersection of the lodes very large deposits of mineral will be found; and looking at the quality of the ore, and at the small cost at which it can be wrought to a depth of 50 fathoms from surface, Capt. Evans would seem to be justified in his opinion that the mine will prove to be a second St. Ives Consols.

CHIVERTON MOOR—CHIVERTON VALLEY.—As the meeting of shareholders is close at hand, I would suggest that the question as to the title to the piece of ground which was supposed to belong to Chiverton Moor sett, and now claimed by the Chiverton Valley Company, should be finally settled and amicably arranged. We were induced to believe at the last meeting that this would be done at the forthcoming one; and a further suggestion, which I think would be for the benefit of the shareholders generally if carried into effect, would be the removal of the offices to London, as the shares are now principally held by parties at a distance—A SHAREHOLDER.

WEST WHEAL KITTY.—A large number of shares in this company have changed hands recently, and prices are consequently firmer, as well as higher. The prospects of the mine, also, are improving, but during the present season difficulty is experienced in the dressing department because of short supply of water. Additional stamps, however, are now being put up, and the most vigorous measures, consistent with prudence, will be pursued for the proper working of this, one of the most encouraging properties in the county. It is contemplated, seeing the prospects here, to direct attention to the St. Agnes district, and the capitalists, who are looking attentively at this district, will doubtless be well paid for any outlay they may make.

TAVISTOCK DISTRICT.—We are pleased to find that some of the mines in this district are laying open profitable ground, and good discoveries are being made. CRELAKE, we understand, has during the past four months laid open a large number of fathoms of ore ground, which will, no doubt, repay the adventurers for the heavy outlay made. We believe the mine is well held by local and Glasgow adventurers, who have kept their interest through great adversity, and we trust they will now (as it is fully believed in the neighbourhood they will) have the reward they deserve—"a rich and lasting mine." The sampling next week is expected to be 200 tons of ore, which must leave good profits on the two months' working, independent of mundic, of which about 200 tons are raised in the two months. WEST MARIA AND FORTESCUE is also, we hear, opening up well, the discovery in the 50 stope, which will produce a good parcel at the next sampling, and also the great improvement in the 40 east, on West Maria lode, must be encouraging to the shareholders, and should certainly place this mine in a good position with the public, especially so looking at its close proximity to the Devon Great Consols.

IMPORTANT REDUCTION OF TICKETING EXPENSES.—In Influential meeting of managers of mines in West Cornwall was held at Tabbs Hotel, Redruth, for the purpose of taking into consideration the general expenses to be paid at the ticketings for the future. The proposal "that all samplers' fees and perquisites be done away with" was received with but little favour, although all recognised the necessity for reduction. Mr. H. Grylls referred to the rate of fees which was fixed in 1832 at a similar meeting to the present, when the great expense attending ticketings—sometimes amounting to 60*l.* or 70*l.* a day—had become so palpable that a meeting was called to revise the scale of fees, and was attended by representatives from all the influential mines in the county. He was not aware that the arrangements then made had been disturbed, through they had not been adhered to. Since that time abuses might have crept in, and they were but doing their duty in bringing themselves back to normal principles. He hoped they would not disturb, but simply correct, present arrangements. Mr. H. Willyams believed the fees and perquisites connected with the ticketings were established by the lords, adventurers, and owners of mines at a county meeting called for the purpose, and he, therefore, denied that the present meeting had power to enter into the question. The county had absolutely determined that the mines ought to pay the fees and perquisites instead of the smelters, and the least that could be done was to ask the consent of the lords and adventurers to any change. His experience as a miner showed him that the establishment of a staff of samplers was as necessary to the prosperity of the mines as of the smelters. They were not the servants of the latter. They were the servants of the miners, who derived great advantage from their services. It was ultimately agreed that a plain dinner should be provided for each cashier, cashier's assistant, and mine agent attending the ticketing, and a resolution to that effect was passed, with the important addition "that the allowance to assayers and samplers be discontinued." It was explained in the course of the remarks upon the resolution that in mining a sampler fills the place of a broker or middleman in commercial dealings.

CORNISH MINERS' DISTRESS—A NEW SONG.—The chief position among managers of mines has been so long occupied by Messrs. John Taylor and Sons' firm that it is difficult to conceive a more favourable place for commencing an effort to give some assistance, small though it may be, to the Cornish miners, who are now suffering so severely through the general stagnation in commercial affairs, than Messrs. Taylor and Sons' annual dinner at the Albion. At this gathering a new, and cleverly-worded, "Mining Song," just issued by Messrs. Robert Cocks and Co., of New Burlington-street, was sung by Mr. Chaplin Henry, and applauded. The words, which are very appropriate for miners' assemblies, since they remind them of the peculiar nature of their calling, and the enormous value of the treasures they seek, are written by Mr. John Phillips, whilst the music, by Mr. C. Warwick Jordan, possesses an agreeable wildness, combined with a slight melancholy, which cannot fail to prove particularly attractive to those for whom it is intended. As the profits arising from the sale of the song will be applied to the benefit of distressed Cornish miners, it is to be hoped that it will enjoy an extensive circulation.

LOCOMOTIVES ON COMMON ROADS.—Mr. Thos. Boulton, of Ashton-under-Lyne, on Monday last, ran a small road locomotive engine, constructed by Mr. I. W. Boulton, from Ashton—through Manchester, Eccles, Warrington, and Preston Brook—to Chester, paraded the principal streets of Chester, and returned home, the distance being over 90 miles, without a single mishap or stoppage for anything except to take in water. It is believed that this is the longest continuous run on record ever accomplished by any road locomotive engine within 24 hours. The engine has only one 4½-in. cylinder, 9-in. stroke, 130 lbs. pressure, and 5-ft. wheels. Six persons were carried throughout the greater part of the road; in some places eight and ten.

THE HUMBER IRONWORKS.—Mr. Horsey, of the firm of Fuller and Horsey, auctioneers, London, offered for sale by auction on Thursday at the Station Hotel, Hull, the buildings and land belonging to the Humber Ironworks Company. There was a numerous company present, but none of the six large lots offered were sold, or even bid for. Lot 1, containing 28,510 square yards, was finally put up at 30,000*l.*; lot 2, 14,000 yards, offered at about 1*l.* per yard; lot 3, 4386 yards; lot 4, 1003 yards; and lot 5, the freehold engineering works in Scott-street, were put up in succession, but the auctioneer failed to elicit a single bid. The sixth lot, a leasehold stable loft in Green-lane, lease 23¾ years to run, was sold to Mr. Scott for 10*l.* Lot 7, a wharf and boiler-yard fronting the river Hull, was the last lot, but it attracted no buyer.

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—J. Phillips, Aug. 21: Our stopes throughout the mine continue to yield about their usual quantity of ore.—North Lode: We are driving by the side of the lode in the 90 east. The lode in the 75 east is 20 in. wide, producing saving work. The lode in the winze in the 62 is 3 ft. wide, composed of capel, spar, and some saving work.

BLACK CRAIG CONSOLS.—Arthur Waters, Aug. 20: Harriet's engine-shaft is in regular course of being sunk below the 54 by nine men, is now down about 3 fms., and we calculate upon sinking to the 66 in 3½ months from this date. The sinking of the shaft is a very important matter here, for until you are in a position to get returns from (say) two balls at a time no material profits can accrue to the shareholders. The great lode is so hard, and the ore ground in it (being in the footwall of everything previously seen in the mines) not yet understood, sometimes apparently dipping one way, and then another, making it impossible to do more than to follow the ore steadily and carefully, as at present. This is a new discovery, and were you to increase your number of hands at the different points of operation you might get a few additional tons of ore, but the result would be less work for the money. A fully agree with your present mode of operations, and feel confident that as soon as the 66 shall have been laid open the prosperity of the mine will be secured. The annexed sketch will show you the extent of the ore ground laid open, taken away, and to be taken away in back of the 54. The ground already cut has yielded about 93 tons of lead ore, and this quantity being from (say) one-fourth of the section between the two levels the reserves may be estimated at 279 tons, or a money value of 3487*l.* 10s. We believe, however, that the best of the ground is still to come, and, considering that the levels are driven, the winzes sunk, and the drift through the middle, cutting up the ground to the best advantage for stoping, it is very likely the returns will be increased at reduced expense of getting them. The rise from the 54 to drift will be communicated in course of a day or two, when some of those men will be put in the 42 east, on the bleude ground, where I feel persuaded good is to be done. There are two or three points likely to come off in the 54, east of Harriet's cross-cut, at the junction of the blackstone with great north and middle lodes. This ground will be developed as soon as possible. The lead ore broken and dressed by the end of this week will be about 12 tons. The men have been sinking and rising from drift and the 52, and packing up the ground in stopes against the blackstone, or more lead ore would have been raised. This work being accomplished, the stoping will go on without delay. The machinery at surface and underground is all in good working order, and the engine-shaft in thorough good condition.

BOTTLE HILL.—J. Eddy, Aug. 23: North Lode: We are driving a cross-cut towards the lode by six men; the ground continues easy for working. I think we have from 8 to 10 fms. further to drive before reaching this lode, which will be done if the ground continues as we now have it in about six weeks from this time.—South Lode: We are driving east of the south cross-cut on the course of this lode by four men; the grouud continues moderately easy for working; the lode is getting more settled, and producing tin. We are stamping our tinstuff already broken as fast as possible, in order to get a sampling, but for the present we are very short of water both for drawing and stamping.

BRONFLOYD UNITED.—T. Kemp, Aug. 22: The cross-cut from bottom of new shaft, at 63 fms. deep, reached the north wall of the lode, as advised last Thursday. The men have since cut about 3 ft. across the lode, and so far it is of an equally good character with that in the level above, and worth about 2 tons of lead ore per fathom. No other alteration.

BRYN GWOIG.—S. Harper, Aug. 21: The lode in the 102, driving east from engine-shaft, still continues from 3 to 4 ft. wide, composed of spar, blende, and lead ore, producing saving work, and a very promising looking lode. The same level, west of the winze, is of much the same character and value as when last reported on. The same may be said of the winze in bottom of this level. The lode in the 90, west from No. 1 winze, west of engine-shaft, is looking well, now worth 3 tons per fathom, and promising for further improvement. The lode in No. 1 winze, in bottom of this level, is 2 ft. wide, much the same in value as last reported—2 tons per fathom. We commenced driving a level about 5 or 6 fms. below this winze, which will intersect this winze in about 6 fathoms. This end has been suspended over two years; and, having opened out the south side of the level, I am pleased to inform you that we have broken some fine lumps of lead, which looks very promising for the shoot of ore above and before us, which we have already opened out about 30 fms. in length, and where it is now in the forebreast worth 3 tons per fathom. The lode in the 90, driving east from No. 3 winze, is about 1¼ ft. wide, much of the same value as last reported—½ ton per fathom. The lode in the 75 west is somewhat reduced in size, now about 1 foot wide, with a little lead, but the ground is much harder than for some past, the ground about this point being very changeable.—Bramwell's Shaft: I hope to reach the 75 about the end of this month—*i. e.*, from the 66 fm. level. We are also getting on very well with fixing ship-road from the surface to the 105 yard level. At the 66, east of engine-shaft, we are still in the shale, consequently I have no alteration to remark on in this point. The lead ore met with in Brook's old run still conttnues good, and worth 2 tons per fathom. All other points throughout the mine continue the same as for some time past.

BWLCH CONSOLS.—R. Northey, Aug. 21: The lode in the 30 is 3 feet wide, producing equal to last report. The stope in the back of the 30 is worth 16 cwts. per fathom. The lode in the 40 is of equal value as last reported, and looking more promising than at that date. The stope in the back of the 40 is worth 1½ ton per fathom. The lode in the 50 is 1 ft. wide, but no lead to value. The lode in the 60 is 2 ft. 6 in. wide, composed of killas and carbonate of lime; we have in each of these last two levels several fathoms more to drive to get under the ore gone down in the bottom of the 40. All our operations underground and at surface are going on well; we have commenced to dress, and are making good progress towards another sampling.

CAPE CORNWALL.—R. Pryor, W. White, Aug. 21: The lode in the 100 fm. level end east is still yielding good stones of tin. The lode in the rise in back of the 90 is worth 4*l.* per fathom, and the stopes east of rise are worth 3*l.* per fathom. The lode in the 70 west is still large, and yielding good copper ore.

CARADON CONSOLS.—S. Bennetts, August 19: In taking down the lode in the 90 west, I am pleased to find a gradual improvement; it is now 1¼ ft. wide, worth 6*l.* per fathom, and every appearance of its soon becoming more valuable. The stope in the back of the 80 is worth 15*l.* per fathom. The new shaft continues to progress favourably, and if we can by means of an air-machine get in the rise I think we shall be enabled to hole in the course of a week.

CLARA UNITED.—J. Davis, Aug. 21: The mine is now drained to the bottom, and the men have this day resumed work in the 62 fm. level. The winze under the 40 was holed last Thursday, and the men put to drive the 40 west a few feet. The branch in which the winze is sunk is 4 feet south of the stopes below, so I intend to stope both branches together up to the 40, which will be about 5 fathoms. There is no alteration in the other bargains since my last. We are drawing regularly, but I am sorry to state that we have not a sufficient supply of water to crush with.

CRELAKE.—W. Skewis, W. Hooper, Aug. 22: The 74 west is cleared and secured to the end, tramroad put in, and the driving by two men resumed; the lode is 1½ ft. wide, composed of mundic, spar, and copper ore—saving work. The lode in the rise in the back of the 62 west is 3½ ft. wide, worth from 15*l.* to 18*l.* per fm. The lode in the stope in the back of this level is 5 ft. wide, worth 12*l.* per fm. The lode in the 50 west is 3¼ ft. wide, composed of mundic, capel, and copper ore, worth from 10*l.* to 12*l.* per fm., a very promising-looking lode. The lode in Williams's, or No. 1 stope, in the back of this level, is 3¼ ft. wide, worth 7*l.* per fm. In the new, or No. 2 stope, in the back of this level, the lode is 4½ ft. wide, worth 12*l.* per fm. The lode in the winze sinking below this level is 3 ft. wide, worth 6*l.* per fm. In the 40 west the lode is 2 ft. wide, composed of mundic, spar, and copper ore; the ground here, both over and under the lode, is of a firmer description than for some fathoms driven through. The lode in the western, or Dart's rise, in the back of this level, is 2 ft. wide, worth 8*l.* per fm. The lode in the stope in the back of this level is 5 ft. wide, worth 15*l.* per fm. In the 28 west the men have during the past week been engaged at surface in preparing the ore for sampling, rather than increase the number of hands for a few days only.

CROWAN AND WENDRON.—R. Reynolds, Aug. 20: The lode in the shaft is still split into two parts; the north part is about 1 ft. wide, producing good stones of tin, but not enough to value at per fathom. The lode in the winze is improved for tin since last reported, and the ground a little more favourable for sinking. We have cleared and secured the run of crushed ground about the clay-course in the south adit level, and are now engaged clearing up the eastern shaft. I hope by Saturday next this will be completed.

CUDDRA.—F. Puckey, Aug. 21: Since reporting last week no change of any consequence has taken place in any part of our mine, and we are progressing satisfactorily in our various points of operation.

DALE.—N. Ninese, Aug. 19: The 37 fm. level is about the same, worth fully 4 tons of lead, and about the same quantity of blende, per fathom. There is no change to notice in the 44 fm. level cross-cut at this time.

DEVON AND CORNWALL UNITED.—T. Neill, Aug. 20; George and Charlotte: The lode in the 24 east is 4 feet wide, looking promising.—William and Mary: In the 46 there is no change to notice. In the 34 east we are driving by the side of the lode, which will be taken down in a few days, and hope for an improvement. In the 34, west of engine-shaft, we have not yet cut the cross-course. The lode in the 22 west is looking very promising, and producing good stones of ore. The tribute pitches are producing fair quantities of ore.

EAST BOTTLE HILL.—J. Eddy, Aug. 23: We are continuing to drive the 10 fm. level east by six men. For the last 6 fms. driving the lode has been split up, forming a north and south branch; there is a horse of killas between the two, about 8 ft. wide. I am happy to say two branches have now formed a junction, consequently the lode has very much improved in size and quality.

EAST GUNNISLAKE.—J. Phillips, Aug. 22: We have not yet met with the lode in the 54, west of Gard's shaft. In the shallow adit we have cut through the lode, and find it is 2 feet wide, composed of spar, with a little gossan, and carrying a very kindly leader on the footwall of black ore, mundic, and prian—still saving work.

EAST LAXEY.—W. H. Rowe, Aug. 20: The lode in the 20 fm. level forehead does not look quite so well to-day; the branch of copper is again broken up, but from the nature of the ground it is more than possible we may have another change in a day or two.

EAST NEPTUNE.—P. Floyd, Aug. 22: We have cut the lode in the 25 fathom level cross-cut driving north, and have cut into it about 18 in.; it is producing splendid stones of rich grey and yellow copper ore. We expect to have about 10 feet more to drive before we reach the north wall of the lode, and when done I will send you the result, value of the lode, &c. We have communicated the winze sinking below the 15 to the 25 fm. level, and shall at once commence to cut plat, in readiness to sink the shaft to the deep adit, which is about 10 fathoms. our prospects at the present time are most cheering.

EAST ROSEWARNE.—C. Glasson, Aug. 22: In King's shaft, sinking below the 95, the lode is 12 in. wide, producing stones of copper ore, but not enough to value. In the 95, east of King's shaft, the lode is 15 in. wide, worth 5*l.* per fm. There is no change to notice in the 95, west of King's shaft, since my last report. In the 85, west of King's shaft, the lode is 12 in. wide, worth 7*l.* per fathom. In the rise in the back of this level the lode is 9 in. wide, worth 7*l.* per fathom. We shall sample next week about 110 tons of copper ore, of the usual quality.

EAST SNAEFELL.—W. H. Rowe, Aug. 14: I was unable to write to you after pay and setting on Friday, as promised; on that day I directed the men to take down some of the lode in the 16, a few yards back from the forehead, in order to prove if the footwall part had separated from the hanging wall, upon which we are now driving; I, however, find it will take a shift or two more to be fully satisfied upon the point. As the meeting is so close at hand, I have also decided on driving a few yards southwards from the sump in the 15, as it will enable me to speak more positively of the dip of the ground, &c. In order to accomplish this, and the air getting so bad (in addition to the water), I have had to increase the number of water and stuff drawers to eight men instead of six. The end is set to six men, at 7*l.* per fm,, and the engine-shaft at 23*l.* There is no change in the vein since the 7th.

EAST ST. JUST UNITED.—R. Pryor, R. P. Goldsworthy, R. Wearne, Aug. 21: Eastern Mine: At Phillip's engine-shaft, sinking under the 30, the ground is favourable; lode without change. The 20, east from cross-course, on Agaworth lode, is producing stones of tin, with a kindly appearance. The 20, west from the cross-course, on Agaworth lode, is without change.—Western Mine: At Saveall's engine-shaft, sinking below the 90, the lode is worth 15*l.* per fm. The 90, east from Saveall's, is worth 10*l.* per fm. The 90, west from same shaft, is worth 12*l.* per fm. The lode in the winze sinking under the 76 west is worth 6*l.* per fm. The 76, west from Saveall's, is worth 8*l.* per fm., and promising for further improvement.—Buck Lode: The 62 east is worth 5*l.* per fm.—Owl Lode: The 40, north from Reddipper shaft, is worth 5*l.* per fm., and improving. The 20, north from West Buck shaft, is without change; this remark will also apply to the 20, south from Saveall's. The 10, north from West Buck shaft, is worth 6*l.* per fm. The 10, north from the same shaft, on the branch, is worth 6*l.* per fm. The adit north from same shaft is worth 6*l.* per fm.—North Lode: The 20 east is worth 5*l.* per fm.—Reddipper Lode: The 20 east is without change.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Aug. 17: The lode in the engine-shaft, sinking below the 95, is 18 inches wide, with a little tin and ore—a promising lode, but not to value. The lode in the 95 east is 18 in. wide, and worth for ore and tin 6*l.* per fathom—a kindly lode. The lode in the 95 west is 18 in. wide, and when last taken down it was worth from 1 to 1¼ ton of copper ore per fathom; this will be taken down on Monday, so that you shall be fully advised against the meeting. The lode in the stope above this level is worth 2 tons of copper ore to the fathom. The lode in the 75 east is small, but contains a little ore and mundic.

EAST WHEAL RUSSELL.—W. Richards, Aug. 17: The lode in the 130 fm. level cross-cut, north-east of the slide, is cut through, and found to be over 9 ft. in width, very strong and kindly, and when it is driven on west towards the slide I believe a good improvement will take place. The ground now is a strongly mineralised elvan, and the water issues from the end as before, which induces me to think there is another lode ahead. We shall, therefore, push on the cross-cut for proof of it, &c.

— Wm. Richards, Aug. 20, The ground in the 130 fm. level cross-cut, east of the slide, is a strongly mineralised elvan, and easy for progress. Water issues from the western side as before, and I still think there are branches or lode before us. I will send a full report of the mine to-morrow.

— W. Richards, Aug. 21: The part of the lode now being cut into in the cross-cut north of Homersham's shaft, in the 150, contains quartz, capel, iron, some red oxide of copper, and grey copper ore. Water issues freely from the extreme point, and it is slow for progress at this time. The part of the lode carried in the 140 east is 18 inches wide, containing quartz, peach, flookan, mundic, and yellow copper ore, but not enough to value. The lode in Doidge's stope is worth 7*l.* per fathom at this time. The rise has been holed to the 130 some days, and the air since then is improved. The ground in the 130 cross-cut, east of the slide, is strongly mineralised elvan, and good for progress. Water continues to exude from the extensive point, particularly the western side, which induces me to think there are branches, or another lode before us; we will push on this operation for proof of it. We are intersecting some branches containing mundic and good quality copper ore by driving the 88 west, but the main or ore bearing part of the north lode is several feet further north. The tribute pitches, on the whole, are in an improving state.

FRANK MILLS.—J. P. Nicholls, J. Cornish, F. Cornish, Agnst 21: The east lode in the 145 north is yielding 4 cwts. of lead ore per fm.; the ground here is very favourable for progress, and congenial for the production of large quantities of lead ore. The west lode in this level, driving north, continues disordered and unproductive of lead ore to value. The stope in the back of this level is yielding ⅛ ton of lead ore per fathom. The 130 north, on the west lode, is suspended, and the men put to rise in the back, with a view to communicate with the level above (the 115) for ventilatton, &c.; the lode here is 2½ ft. wide, spotted throughout with lead ore, and looking well for an early improvement. The stope in back of this level is yielding 12 cwts. of lead ore per fathom. The ground in the 115 north rise is without change. The stope in the back of this level, on the east lode, is producing 10 cwts. of lead ore per fm. We expect to hole the winze sinking in the bottom of this level south from cross-cut in a few days from this time, which will greatly facilitate the working of the 130 fm. level stope. The ground in the 100 north is rather stiff and spare for progress. The two stopes in the back of the 100 are each yielding ½ ton of lead ore per fm. The stope in the back of the 84 is yielding 12 cwts. per fm., and the stope in the back of the 45 north is yielding 7 cwts. of lead ore per fm. The tribute department, on the whole, is looking a little better.

FURSDON.—J. Collins, Aug. 22: The lode at the adit is worth 20*l.* per fathom, but we cannot make the progress we wish, having to sink for stopes now 4½ fms. below the bottom of the level. The lode in the 11 east is improving a little, but not rich; progress at this place is slow, having only two men employed. We calculate to sample for this month above 20 tons of good quality ore. The produce of last ore sampled is 8¼ per cent.

GAWTON COPPER.—G. Rowe, G. Rowe, jun., Aug. 17: The ground in the 70 fm. level cross-cut is exceedingly good, and showing indications of getting near the south wall of the lode. The lode in the 60 east is without change, being worth 1 ton of ore per fathom. But little has been done in the 60 west during the past week, the men having been employed on other necessary work. The lode in the stopes in back of the 60 west is worth 4 tons of ore per fathom. The lode in the stopes in back of the same level east is worth from 3 to 4 tons of ore per fathom. The lode in the stopes in bottom of the 50, west from cross-cut, is worth 5 tons of ore per fathom. The lode in the stopes in back of the 50, east from Moor's cross-cut, is worth 4 tons of ore per fathom. The lode in the stopes in back of the same level, west from Moor's winze, is worth 10 tons of ore per fathom. The lode in the rise in back of the 50, west from old sump, is worth 3 tons of ore per fathom. All our surface operations, including the dressing department, are progressing very satisfactorily.

GLASGOW CARADON CONSOLS.—W. Taylor, Aug. 21: In the 75 west the lode is a little looser, and letting out a little more water. I hope we are not far from a greater change. The 65 west is the same as before reported. The stopes in back of this level are looking a shade better, and turning out fair quality ore. The new lode, in the 65 west, is worth full 12*l.* per fathom, and easy to work—a very fine looking lode. East at this level is is worth 10*l.*; the lode appears to be opening here, and I think will improve; ground also favourable. We are pushing on with the dressing for next sampling, and hope to get an increased quantity.

GREAT CWMSYMLOG.—Richard Williams, Aug. 21: The piece of lode taken down since we recommenced driving the 25 west, on this day week, has turned out good ore, equal to former reports—from 10 to 15 cwts. of lead per fathom. The ground is rather hard, but from the appearance of the end to-day I expect a favourable change in the ground and in the lode at the next taking down.

GREAT MONA.—J. Trewin, Aug. 14: During the past month the lode in the engine-shaft has yielded nice lead and copper ore, and, I am glad to say, is still looking well. The shaftmen are very busily engaged in making the necessary preparations for fixing the lift of pumps into a cistern, in putting down the rods, &c., and as soon as it is completed the sinking of the shaft will be resumed with all speed.

GREAT NORTH DOWNS.—William Rich, C. Bawden, Aug. 21: The sinking of Sleggan's shaft below the 86 is being urged on as fast as possible; the lode in the deepest point has a very promising appearance, worth 25*l.* per fathom for the length of the shaft. The 86, east of Sleggan's, is worth 10*l.* per fathom. The 86 west is worth 15*l.* per fathom. Two stopes in the back of this level are worth 40*l.* per fm. A stope in the back of the 86 east is worth 10*l.* per fm. Butler's shaft, 10 fms. below the 60, is looking well; the lode is worth 15*l.* per fm.

GREAT NORTH LAXEY.—R. Rowe, Aug. 21: I have now returned (late) from the mine, after having put to work, with every apparent satisfaction, the new 60-ft. wheel, to which is attached a line of rods a quarter of a mile in length. I am glad to say that since yesterday we have an improvement in the bottom of the shaft sinking below the 15, having tapped a further heavy feed of water, and the lode again opening out in size, with good stones of lead and blende. On this, and the working of the new wheel, I will report more fully next week.

GREAT RETALLACK.—G. R. Odgers, J. Harris, Aug. 22: Our progress in sinking the No. 1 shaft has not been so good this week as it was last, in consequence of the air being so tight that it has been difficult for the men to keep the candles alight to work by; however, the shaft is now down 9 fms. 5 ft. below the 9, and we shall make every effort to get it to the 20, and to cut the lode by the promised time—next survey. There is no change in the No. 2 shaft during the past week, no lode having been taken down; we are making fair progress in sinking, in a very pretty channel of ground. The lode in the 20, north of the No. 2 shaft, is from 15 to 18 in. wide, principally of quartz, with stones of lead. We are anticipating an improvement here shortly. The lode in the 10, south of the No. 2 shaft, is 18 in. wide, composed of friable quartz, white iron, and stones of lead—a promising lode. The stope below this level continues to produce good silver-lead, of about 10 cwts. to the fathom. The lode in the 10, north of the No. 2 shaft, is from 2 to 2½ ft. wide, composed of quartz and gossan, with stones of lead. The stope above this level continues to produce its usual quantity of lead.

GREAT SOUTH CHIVERTON.—J. Nancarrow, J. George, Aug. 20: The plat in the 40 is completed, and we have now resumed the sinking of Gifford's shaft below that level. The south lode in the 30 west presents just the same appearance as last week, but the end is letting out more water. The ground in the 30 cross-cross-cut north is moderate. The water does not abate in the winze, but the leader of copper and mundic is larger, and looks stronger, affording the best evidence of a productive lode for lead below.

GREAT WHEAL BADDERN.—R. Prpor, H. Tregoning, Aug. 17: We have set the following bargains to-day:—The 75 fm. level cross-cut to drive south of Hill Brothers engine-shaft, by six men, at 16*l.* per fm.; the end is still in the elvan course. The 75 fm. level to drive west from the cross-cut, on the Wheal Baddern lead lode, by six men, at 8*l.* per fm., in a lode 2½ ft. wide, composed of mundic, flookan, and spar, with spots of silver-lead; the end at this time is presenting a better appearance than for the last 15 fms. driving, and the water coming from the end is still increasing.

GREAT WHEAL FORTUNE.—T. George, N. T. Miners, Aug. 21: Carnmeal: Hosken's shaft is sunk 5 fms. below the 140 fm. level, or about 125 fms. perpendicularly from surface, and is now down to within 5 fms. of the perpendicular depth of where the deep and present deposit of tin was first met with in the adjoining mine (Wheal Metal); the leading part of the lode in the bottom of the shaft is from 2 to 3 ft. wide, composed of prian, mundic, and spar, and for the last 3 ft. sunk has materially improved, both in appearance and for dispatch; there is a great change, also, in the killas to the south of the lode, which looks more congenial for the production of tin than for some time past; the sinking of this shaft is of the highest importance to the mine, hence its being forced on as rapidly as possible. The lode in the 140, driving west, is 4 ft. wide, well defined, and made up with prian, peach, mundic, and a little tin.—Tugg Lode: Tugg shaft is sunk 7 fms. below the 10 fm. level, sinking by nine men, at 10*l.* per fm.; the lode in the bottom of the shaft is still small, producing stones of tin and copper. The lode in the 10 fm. level, driving east, is about 1 ft. wide, composed principally of spar, with a little tin interspersed; the lode in the same level, driving west, is about 18 in. wide, made up with capel and spar, but poor for tin. There are now nine pitches being worked, by twenty-two men, at tributes varying from 9s. to 13s. 4d. in 1*l.* Some of these pitches present an improved appearance, which we hope will assist our future returns.

GWYDYR PARK CONSOLS.—W. Smyth, Aug. 20: The Gwyn Llifion end is without change since last report.

HARWOOD.—J. Race, Aug. 17; We have not yet anything in the end of the level, but the beds are strongly impregnated with sulphur, and sometimes spots of lead ore; I think we are near cutting some east and west vein. No particular alteration in any of the other workings, except opening out the level to Trough, where we are over the run and into open ground. We have about 8 tons of ore dressed, and on the floors.

HERODSFOOT.—T. Trevillion, Aug. 21: We have intersected the lode at the 160, and driven north on its course about 3 fms.; the lode is 1 ft. wide, producing some very good stones of lead, and issuing out a pretty deal of water, which is with us a favourable indication; we shall push on the driving north, so as to shortly rise from this level and sink from the level above, to effect a communication so as to ventilate both the bottom and 147 north. There is no change in the lode in the 147 north; the lode is small and poor. The lode in the 147 south is 18 in. wide, and will yield 6 cwts. of lead per fm., with good ground for driving. The lode in the 137 south is 2 ft. wide, and worth 12 cwts. of lead per fm. The lode in the 127 is 18 in. wide, and worth 8 cwts. of lead per fm. The stopes throughout the mine are yielding their usual quantity of lead, and all the machinery in good working order. We sold our 60-ton parcel of lead ore on Saturday to the Burry Port Smelting Company, which fetched 27*l.* 10s. 6d. per ton.

HINGSTON DOWN CONSOLS.—T. Richards, Aug. 21: The 140 fm. level, west of Bailey's engine-shaft, is worth 35*l.* per fm. The stope in the bottom of the 130, east of the cross-course, is worth 40*l.* per fm. The stopes west of the cross-course are worth 30*l.* per fm. The stope in the back of the 130 east is worth 25*l.* per fm. The stopes in the back of the 130 west are worth 20*l.* per fathom. The stopes in the back and bottom of the 120 east are worth 20*l.* per fm. The stope in the back of the 120 west is worth 18*l.* per fm. The ground in the deep adit is favourable.

MINERA UNION.—Wm. T. Harris, Aug. 22: Brabner's Shaft: The 60 yard level north is the same as last reported. The pitch in back of this level is worth 8 cwts. of lead per fathom. The pitch in the bottom of the 80 yard level is worth 5 cwts. of ore per fathom.—Boundry Shaft: The pitch in bottom of the 60 yard level north is worth 8 cwts. of lead per fathom. The pitch in the bottom of the 50 yard level yields good stones of ore; the pitch in back of this level is worth 10 cwts. of ore per fathom. No. 2 pitch, in back of this level, is worth 8 cwts. of lead per fathom.—William's Shaft: The 40 north yields good stones of lead in very nice ground; the south end is worth 10 cwts. of lead per fathom. New shaft is now 6 yards deep, and ground favourable for progress.

NANGILES.—J. Rowe, Aug. 21: The lode in the 130, west of the engine-shaft, is 4 ft. wide, producing stones of ore, and letting out an increased quantity of water; this end is now 3 fms. short of the perpendicular of the place where the lode became productive in the 120. The lode in the 120, west of the engine-shaft, has been poor for the last 3 fms. driving; it is 3 ft. wide, with a kindly appearance. The stope in the back of the 120 is worth 10*l.* per fm.; stoping by four men, at 3*l.* per fm. The stope in the bottom of the 120, west of the winze, is worth 10*l.* per fm.; stoping by four men, at 4*l.* per fm. The lode in the winze below the 120 is 3 ft. wide, containing stones of ore. On Saturday last we set a cross-cut to drive north of the engine-shaft at the 130; this cross-cut is started to intersect some of the lodes which have been very rich in the Consolidated Mines, Gwennap. We have sampled 52 tons of copper ore to-day.

NETHER HEARTH.—W. Vipond, Aug. 17: We have just got into the small vein. To the east the stope is hard and poor to begin with, but there is more ore in sight at the top part, a fathom or so further on. To the west it is clayey and broken, mixed with ore. We have had rather better ore on the sides this week, near the western stope on the vein.

NEW BIRCH TOR AND VITIFER CONSOLS.—William Skewis, Richard Trevarthen, Aug. 22: North Lode: The lode in the 48, east of Hambley's shaft, is worth 4*l.* per fathom for tin. The cutting down of the new shaft is completed to the 36, and the skip-road fixed, and we shall now commence drawing stuff from this level. The men are engaged in cutting plat in the 36, which will be completed in a few days.—Main Lode: The lode in the 12 west is 6 feet wide, composed of spar and iron, but no tin to value. Looking at the size and character of this lode, we expect an improvement as we near the cross-course, which cannot be many fathoms to the west. The tribute pitches are yielding about their usual quantities of tin. Two trial pits have been sunk to the east of our present workings on this lode, but nothing discovered to warrant the sinking of a new shaft.

NEW CLIFFORD.—W. Michell, Aug. 21: The ground in the cross-cut at the 50, driving south of Holland's engine-shaft, is, I am happy to inform you, more favourable for opening, and I believe from its appearance we are getting near the clay-slate; when this is reached we shall soon intersect the Penstruthal lode, which, without a doubt, will be found to be very valuable. The lode in Weston's shaft is of the same character as when last reported on, composed of gossan, prian, spar, and capels, but it has increased in size, and the ground is now very favourable for sinking. Taking these two facts in conjunction, I expect a good discovery here shortly. The engine and pitwork are in first-rate condition, and working well.

NEW CROW HILL.—Aug. 20: In the 70 east, driving by the side of the lode, in the end is a branch about 6 in. wide, composed of mundic and jack, with good stones of ore running towards the lode underlying north, worth at least 2 cwts. of ore per fathom, which we shall follow, and cut through the lode. In the new winze, under the 55, the lode is now about 5 ft. wide, and showing more ore.—Stopes in back of the 55 (Nos. 1 and 2): The lode in each stope is looking well, and the new stope is certainly likely to further improve shortly.—Cross-cut in bottom of Louisa Shaft: It appears now we are through all the lode stuff in the cross-cut, and I shall at once place the men to drive east and west on that part of the lode last cut through, which is showing more ore than any part met with in the cross-cut.

NEW TRELEIGH.—S. Michell, Aug. 22: There is no change in the mine to notice since last reported. The stopes in back of the 60, west of the new shaft, continue to be worth from 4*l.* to 5*l.* per fm. We shall sample on Tuesday next; the quantity I will give you next week.

NEW WHEAL TOWAN.—R. Pryor, Aug. 20: There has no lode been taken down in the adit level west during the past week, consequently there is no alteration to notice.

NORTH DOWNS.—F. Pryor, J. Grenfell, Aug. 20: Setting Report: Bennett's Shaft: The 70, to drive east of this shaft, to six men, at 9*l.* per fathom. A winze to sink below the 60, east of the above shaft, to two men, at 5*l.* 10s. per fathom. There is no change to notice in either of the above points since last report. A cross-cut to drive south of this shaft, at the 40, to two men, at 3*l.* per fathom.—King's Shaft: The 60, to drive west of this shaft, to three men and three boys, at 5*l.* per fathom; the lode in this end is letting out an increase of water, and producing stones of ore, with a promising appearance. A stope in the back of this level, east of rise, to four men, at 2*l.* 15s. per fathom, lode worth 15*l.* per fathom, A stope in the back of this level, west of rise, to four men, at 2*l.* 15s. per fathom; lode worth 20*l.* per fathom. The 50 to drive west on this (the south) part of the lode to two men and two boys, at 4*l.* per fathom; the lode in this end has undergone a great change for the better in the last 6 ft. driving; it is now 2 feet wide, and producing saving work, with a promising appearance. A cross-cut to drive south of main lode, at this level, to cut the south lode west of the above shaft, to two men, at 5*l.* per fathom; we have intersected a branch in this cross-cut which produces a little ore, but we have set to drive 1 fm. further, thinking there may be more of the lode standing in that direction. We have set four tributes to eight men, at tributes varying from 12s. 6d. to 13s. 4d. in 1*l.*

NORTH HERODSFOOT.—William Goldsworthy, Aug. 22: In the 86 north the flookan branch is from 2 to 6 in. wide, and strongly impregnated with mundic and lead, the ground above it being a pretty blue killas. In the south end the ground is a little harder, but the flookan branch still keeps its regular course.

NORTH JANE.—James Rowe, Aug. 19: The ground in the 35 cross-cut, south from engine-shaft, has improved for driving; it is still in the elvan course, but the elvan is not so hard; now driving by nine men, at 17*l.* per fm. We hope in a short time to get through it; we shall then make good progress. The ground in the 15 cross-cut, north from Northey's shaft, is favourable for driving, and very good progress is making here. Driving by four men, at 3*l.* 12s. 6d. per fm.

NORTH POOL.—J. Vivian and Son, F. Clymo, Aug. 22: Middle Lode: In the 40, east of sump, the lode is 2 feet wide, composed of quartz, with yellow copper ore scattered throughout it; it appears to be increasing in size, and presents a very promising appearance for improving in quality. In the 40, west of sump, the lode is small, but will, we think, soon open again, and improve in productiveness. In the back the lode will produce 2 tons of good ore per fm., and there is an equally good lode in the bottom of the level. In the 40, west of Ballarat shaft, on Ballarat lode, the lode is 1 ft. wide, and improving in character. We sampled on Wednesday 18 tons of copper ore of moderate quality.

NORTH PHŒNIX.—J. Seccombe, J. Martin, Aug. 16: Setting Report: The 160 to drive west in the killas, on the south side of the lode, by six men, at 8*l.* 10s. per fathom; the ground has much improved, being an easy congenial killas. The 140 to drive west, on the south side of the lode, by six men, at 6*l.* per fathom; there is no change in the ground here. To drive the No. 4 cross-cut north, at the 140 west, by four men, at 16*l.* per fathom; the ground in the end is a mixture of capel and killas. Water is issuing more strongly from the end, which induces the belief that we are getting nearer to the leader part of the lode, which produced ore in the No. 3 cross-cut. To drive west on the course of the lode from the No. 3 cross-cut, at the 140, by two men, at 15*l.* per fathom; the lode here is producing good stones of ore, and is impregnated with copper.

NORTH RETALLACK.—G. R. Odgers, Aug. 17: The lode in the No. 1 boundary shaft is looking even more promising then I told you on Thursday. I have to-day broken some pretty lead from the shaft, and have a pile of stuff at surface that will make a hundredweight or two of lead; seeing this is only (say) 4 fms. deep, I am sure speaks well. It is my firm conviction that under this place there is a bunch of lead. The No. 2 boundary shaft is 7 fathoms below the adit, in a good stratum for making lead, but we have not yet cut into the lode, for fear of the water. We have no change to report in the adit north.

NORTH RETALLACK.—G. R. Odgers, Aug. 21: The lode in No. 1 boundary shaft is 18 inches wide, with a good branch of lead; if it continues it will produce from 2 to 3 cwts. to the fathom, and it contains pretty much carbonate of lead—a very pretty lode. The ground is also improving getting down to the blue ground. In No. 2 boundary shaft there is a beautiful stratum for lead, but we have the lode standing on the eastern side.

NORTH SHEPHERDS.—H. Bennetts, Aug. 22: The lode in the 50 fm. level west is much improved since last reported; the lode is 2 feet wide, producing good samples of silver-lead ore—a kindly lode, and I believe that we shall see a better improvement in this end shortly. The rise in the 40 fm. level, against Rye's shaft, is up 4 fms., and good progress is made in rising. The lode in the 30 fm. level, west of Rye's, is at present small, but not without lead: I hope we shall not be long before an improvement will be seen in this end. The flat-rod shaft is down to the 20, but it will take a few days to timber and secure it to the bottom. The 20 fm. level cross-cut is pushed on with all possible dispatch, in order to see the new south lode. The engine and pitwork are working well.

NORTH TRESKERBY.—R. Pryor, J. Tregoning, T. Jenkin, Aug. 22: Tresidder's Shaft: The 130 fm. level endmen, east of shaft, are at this time engaged in cutting through the lode, which has been cut into 2¼ or 3 feet, and, as far as yet seen, it is worth for copper ore 10*l.* per fathom; the lode is large, and has not yet been cut through for the whole distance driven—3 fms. This is a great feature, and, we believe, will go on to improve. The lode in the 120 end east is 4 ft. wide, worth 18*l.* per fathom, with a good appearance. The lode in No. 1 stopes, in back of this level, is worth 15*l.* per fathom; and in No. 2 stopes the lode is worth 16*l.* per fathom. The lode in this level, west of shaft, is 2 ft. wide, but at this time of no value. The lode in the 110 end east is 18 in. wide, composed of spar, mundic, and peach, with a little copper ore intermixed—a kindly lode, and likely to further improve. The lode in the winze sinking below this level is producing 2½ tons of copper ore per fathom. The lode in the 100 end east has within the last two or three days undergone a very favourable change, and is now 3 ft. wide, producing good stones of ore, with a promising appearance for further improvement. All other places without change. We are glad to say that our prospects are much improved, and our next sampling will be from 50 to 60 tons more than our last.

OKEL TOR.—J. Rodda, Aug. 22: The south lode, in the 80 east, is without alteration; there are some sparry branches gone off south, and we are driving to ascertain if a part of the lode is standing in that direction. The lode in the 50 east is still of a most promising appearance, being composed of quartz, peach, mundic, and ore. The lode in Hele's winze, sinking below this level, is very large, and is composed of capel, spar, peach, mundic, and ore, producing 4 tons of the latter per fathom. Geake's stope, in the back of the 50, west of Bickle's cross-cut, will yield 2½ tons of ore per fathom.—North Lode: Bates's stope, in the back of the 50 fathom level east, will yield 4 tons, and Treloar's stope will yield from 3 to 4 tons of ore per fathom. The cross-cut south from the 65 east is being pushed forward with all possible dispatch, and we are making good progress: the ground is letting out a little water, which indicates our being very near the south lode, the intersection of which will, no doubt, drain the water from the winze sinking below the 50, so that much better progress in sinking may be made. Olver's stope, in the back of the 65 east, is improved, and will now yield 4 tons of ore per fathom. Wilton's stope will yield 3 tons of ore per fathom.

There are two other stopes in the back of the same level, yielding 2½ tons of ore each per fathom.

OLD GUNNISLAKE.—H. Rickard, Aug. 21: Our progress in driving both the 48 fathom level, east from Parker's, and the deep adit level west, towards the same, has been favourable during the past week, yet the ground remains hard. Michael's engine started this day at 1·30 in admirable style, after some days' detention, owing to the steam-valve being broken, and which we had to replace by getting a new one, as well as the requisite pipes for throwing steam in the stuffing-box. I will keep you well advised as to the forking of the water, which, from every appearance, is likely to do well.

OLD WESTMINSTER.—F. Evans, Aug. 21: I have no particular change to report in the mine since my last. The 90 west looks exceedingly promising, and we are hastening on the 92 east as fast as possible.

PEDN-AN-DREA UNITED.—Wm. Tregay, J. Thomas, E. Chegwin, Aug. 17: Sump: The lode in the winze in the bottom of the 130 is worth 14*l.* per fathom; this is perfectly drained by the 140 bore-hole in the cross-cut; this cross-cut is now 6 feet from the lode, and will be in by the time the winze is down to the lower level. The lode in the 130 east end is worth 6*l.* per fathom. The lode in the 130 west end is worth 12*l.* per fathom, for 6 ft. in breadth, and no wall. The stope in bottom of this level is worth 30*l.* per fathom. The stope in back of this level is worth 15*l.* per fathom. The lode in the 120 west produces stones of tin, and promises improvement. The lode in the 100, east rise, is worth 6*l.* per fathom.—Cobler's: The lode in the 110 east is worth 8*l.* per fathom. The lode in the 110 west is worth 14*l.* per fathom, for 6 ft. in breadth, and no south wall. Nothing of importance intersected in the 90 north since last report. The lode in the 90 fathom level end, west of cross-course, on north lode, is worth 8*l.* per fathom. No other change to report.

PENHALE WHEAL VOR.—W. H. Martin, Aug. 21: In the 74 cross-cut, south from Hollingsworth's shaft, the men early this morning bored a hole, and thought by the difference in boring that they had met with a lode, and rammed the stuff, which produces mundic, &c., and fully convinces me that we shall cut the lode in a day or two. In Sanford's shaft the lode sinking below the 84 fm. level is 2½ ft. wide, composed of peach, prian, and stones of tin. The lode in the 84, east of cross-cut, is 1 ft. wide, composed of peach and prian, disseminated with tin. I think this lode will shortly improve in size and value.—South Lode: In the 38, east of cross-cut from Battye's shaft, the lode is 1 foot wide, worth 8*l.* per fm. In the back of the 38 the lode is 10 in. wide, worth 4*l.* per fathom. The lode is still disordered in the 26 east, but we have occasional stones of tin. In the stope in bottom of the 26 the lode is 16 in. wide, worth 6*l.* per fathom. In the stope in back of the 26 the lode is 1 ft. wide, worth 6*l.* per fathom. The lode in the 10, east of cross-cut, is 1 ft. wide, composed of gossan, blende, prian, and tin, but not to value. We shall sell on Saturday next, Aug. 24, 5 tons of black tin.

PENHALLS.—S. Bennetts, W. Higgins, Aug. 17: In the 60 east the lode is still of a very promising character, worth fully 5*l.* per fathom, and the ground good. The shaft below this level is without alteration, and in the rise over the lode has not been cut as yet beyond the heave. In the 60 south, on the cross-course, we have cut one part of the lode—unproductive, and the cross-course on which we were driving is so disordered as to be almost imperceptible. The new lode in the 50 west continues large, and producing some tinstuff, but not to value. The east end on this lode has fallen off, and is now worth 5*l.* per fathom. The rise over continues worth fully 15*l.* per fathom. The 50 west, on the Pink lode, is worth 7*l.* per fathom. There is no alteration in the 50 south on the cross-course. In the old Pink Mine the water is now about 7 fathoms below the adit, and the machinery all in good working order; the fact of the water rising extremely slow here during stoppages fully proves the old workings to be very extensive, and hence the reason why the progress made in forking is slow.

PRINCE OF WALES.—J. Gifford, W. Gifford, Aug. 20: In the 55 east the lode is 2½ feet wide, worth 15*l.* per fathom. The stope in the back of the 55, east of winze, is worth 20*l.* per fathom. The stope in the back of the 55, west of winze, is worth 25*l.* per fathom. The stope in the back of the 55, west of cross-cut, is worth 25*l.* per fathom. The stope in the back of the 45, east of cross-cut, is worth 15*l.* per fathom. The rise in the back of the 45 west is worth 15*l.* per fathom. In the 55 fathom level cross-cut north the end is favourable for driving, and letting out more water. In the cross-cut north in the 45 east we have cut the north part of the lode, but not through it, now in 2 feet, composed principally of capel and spar. The lode in the 45 west is becoming smaller, now worth 8*l.* per fathom. In the cross-course going north, in the 55 west, there is a branch 4 inches wide, producing good work, assays of which I enclose. In the present end it is worth 10*l.* per fathom; this leads us to believe when the north part of the lode is met with (which is left standing 3 fathoms behind the end) it will be found good.

REDMOOR.—T. Taylor, Aug. 21: We have re-set the cross-cut north to six men, at 6*l.* per fathom; the ground has improved for driving. We have also re-set the cross-cut south, in the 64, to six men, at 6*l.* 10*s.* per fm.; this end is letting out more water, and contains mundic, with spots of ore, &c., evidently near to a lode.

ROSECLIFF AND TOLCARNE.—R. Pryor, J. Phillips, Aug. 22: The ground in the 50 cross-cut north continues favourable for driving, and the men are making good progress. The lode in the 30, west of the great flookan, is without much change to notice since our last report; the ground is easy for driving. The lode in the stopes in the back of this level is worth 3*l.* per fathom, and in the stopes in the back of ditto, east of cross-cut, the lode is worth for lead and blende 3*l.* per fathom. The underlie of the great flookan is about 6 in. in 6 ft., consequently it will very considerably shorten the lead ground in the back of the 30, but it will lengthen it quite as much in the 50.

ROSEWARNE CONSOLS.—John Nancarrow, Aug. 20: There is a fine-looking lode in the 80, west of sump, which yields some rich ore. The lode also looks well in the 70 west, and there is every prospect of a good discovery shortly. The pitches look just as they did at the setting. Our sale of tinstuff realised 59*l.*

SORTRIDGE CONSOLS.—R. Jackson, Aug. 22: In the 140 cross-cut, both north and south of the engine-shaft, we are pushing on with all possible speed, and good progress has been made. No alteration in any other part of the mine.

SOUTH CONDURROW.—J. Vivian and Son, William Williams, Aug. 17: Workings West of King's Shaft: In the 71 the lode is 2 ft. wide, composed of ferruginous quartz and flookan, containing a little native copper. In the 61 the lode is 5 ft. wide, composed of hard quartz, containing a little tin, and letting out a large quantity of water. In the 51 the lode is 3 ft. wide, composed of chlorite and quartz, with some good copper ore. The stopes in the back of this level are producing copper ore worth about 10*l.* per fathom. In the 40, west of Vivian's shaft, the lode is 3 ft. wide, containing principally quartz and mundic, with a little black copper ore. We have to-day set another winze to sink from the 40 to the 51, at about 17 fms. west of the winze already sunk through ore ground, and we hope that this will also open out some copper ground for stoping. In the 30, west of Vivian's shaft, the lode is 2 ft. wide, and containing much mundic, with a little copper ore.—Workings East of King's Shaft: In the 71 the lode is 2 ft. wide, composed of ferruginous quartz, with a little native copper. In the 61 east the lode is 2 ft. wide, composed principally of quartz, containing much mundic, and presenting a more favourable appearance than it has done. In driving the 61 north on the cross-course the ground continues favourable for driving. In the 51 east the lode is 2 ft. wide, composed of ferruginous quartz and flookan. We are cutting down old Tye shaft to bring it to a regular underlie.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, Aug. 17: The lode carrying in the shaft is small, and we are thinking that the branch which underlied a little faster north, about 2 fms. from the bottom of the shaft, will prove to be the main part of the lode, and which will be seen at the 30 fm. level. The lode in the rise above the 20 east is 2 ft. wide, of quartz, gossan, and occasional stones of ore. The lode in the winze sinking below the adit east is of much the same size as the lode in the rise, but more irony.

TREWEATHA.—T. Foote, J. Scoble, Aug. 20: We have not yet intersected the lode in the 50, south of the slide, but from the appearance of the ground, and the water that is coming from the end, we may expect it to do so in a few days. The lode in the 40 north is 3 ft. wide, composed principally of flookan, and producing a little lead, but not to value at present. The lode in the 30 north is 2½ ft. wide, looking very promising, and worth 6 cwts. of lead per fm. The stopes, on the whole, are looking poor.—South Mine: The ground in the cross-cut west at the 63 is favourable for driving, and good progress is being made. The same will apply to the rise in the back of the 50, on the eastern lode. We are making good progress in sinking Harris's shaft, the lode being 2 ft. wide, producing a little lead, a fine-looking lode. The tribute pitches are looking the same as for some time past, and the men are getting fair wages. All the machinery is in good working order, and the water easy at present.

VIGRA AND CLOGAU.—W. J. Holman, Aug. 22: At the No. 2 Mine th ere has not been any change to note during the week; visible gold in small quantities has been obtained from various points, the balance of the stuff broken being stamps work. The lode in the western part of the mine is disturbed by a cross-course, which has heaved the lode, and thrown down the strata, thereby placing the bearing ground at a deeper point than was anticipated, or than has yet been reached in that part of the mine, still it is believed that this cross-course will cause a considerable enrichment of the lode, as was found to be the case at the No. 1 Mine, where the great bunches of gold all made behind the cross-course. At the Vigra Mine the adit is being driven as usual. At the No. 1 Mine the back of the lode is being stripped, and presents a very fine appearance. The erection of the engine at Old Clogau progresses well. The supply of water to the stamps during the week has been intermittent. Gold received at the offices of the company since last reported, 25 ozs. 4 dwts.

WEST BASSET.—George Lightly, Aug. 21: Grenville's Shaft: In the 154 west the lode is 4 ft. wide, containing good stones of ore. In the 144 east the lode is 1 ft. wide, unproductive. In the 144 west the lode is 1 ft. wide, containing stones of ore.—Thomas's Shaft: In the 75 east, on the middle lode, the lode is 1 ft. wide, containing stones of ore. In the 65 east, on the north part, the lode is 1 ft. wide, yielding a little ore. In the 65 east, on the south part, the lode is 3 feet wide, worth 8*l.* per fathom for tin. In the 65 west the lode is 1½ ft. wide, yielding a little tin. In the winze in bottom of the 52 east the lode is 2 ft. wide, opening up tribute ground. In the winze in bottom of the 52 west the lode is 1 ft. wide, containing stones of ore.

WESTMINSTER.—F. Evans, Aug. 21: I have very great pleasure in being able to report an improvement in our prospects for lead ore. Thompson's engine-shaft is worth full 3 tons per fathom, and the lode masterly and strong. I believe it will become more valuable as we sink. The lode in the 70, east of Thompson's shaft, is not quite so large; now 3 ft. wide, with lead ore throughout, worth 2 tons per fathom. The lead ore is solid, and the matrix forming the lode is everything that can be desired. I calculate there is a long run of ore ground of similar, if not better, quality before this end. The 80, west of old engine-shaft, will produce 10 to 12 cwts. per fathom, and opening tribute ground. The 80 east continues to be driven in speedy ground, and will soon be got up to the main ore ground of the mine towards Thompson's shaft; the lode is about 2 ft. wide, with less underlie. The pitches in this part of the mine will produce a fair quantity of lead ore.—Eastern Mine: The shaft sinking below the 40 is in an orey lode, and the prospects for lead very good. A pitch in the roof of this level is of fair promise, and the stuff washing from it to-day produces excellent solid lead. The engines are working very well, and every pitch and bargain in the mine is being pressed forward with a full number of men. You cannot fail to observe, as I have already stated, the improved prospects for lead, and as the 70, east of Thompson's, continues good, it will be plain the latter shaft must open valuable lead ground.

WEST BRITON.—W. Rosewarne, Aug. 22: The lode in the 42 fm. level, west of the engine-shaft, is 4 ft. wide, composed of blende, quartz, and yellow copper ore, a very kindly lode. The lode in the 20 fm. level, west of the engine-shaft, is worth 5*l.* per fathom. The tributers are working with spirit, and are getting fair wages.

WEST GODOLPHIN.—J. Vivian and Son, John Pope, jun., Aug. 22: Hope Lode: In Paull's shaft, sinking below the 15, the lode is 10 in. wide, and worth 8*l.* per fathom; price for sinking, 1*l.* 5*s.* per fathom. In the 15, west of Paull's shaft, the lode is mixed with killas, and worth 3*l.* per fathom. In the 15, east of Paull's shaft, we are still passing through the disordered ground accompanying the cross branches, but which we expect soon to get clear of, and have an improved lode. The stopes in the back of the 15, east of Paull's shaft, are worth 5*l.* per fathom; price for stoping, 15*s.* per fathom. We have communicated the new shaft (west of Paull's shaft) to the 8 fathom level, which has ventilated the mine, and laid open a large section of profitable tin ground for stoping. We shall now continue this shaft to the 15, by which we have every reason to expect that we shall make still more valuable discoveries. We shall also resume the driving of the 8 west.—Caunter Lode: The stopes in the back of the deep adit level, south-east of Charlie's shaft, are worth 10*l.* per fathom. In the deep adit level, south-east of Charlie's shaft, the lode is 3 feet wide, and presents an improving appearance, being worth 3*l.* per fathom. In the shallow adit level, south-east of pump-shaft, there is a large and very promising lode.

WEST GREAT WORK.—S. J. Reed, Aug. 21: We have just begun to take down the lode in the flat-rod shaft sinking below the 40, which is standing 8 ft. high, and as far as seen is worth 7*l.* per fathom for tin. In the 40, east from flat-rod shaft, the great north lode is of good size, and worth 8*l.* per fathom. In this level west we have interested a cross-course; the lode averages 2 feet wide, and worth 6*l.* per fathom. The stopes in back of the level are worth 8*l.* per fathom. This lode in the 30 east has improved, now 2 feet wide, composed of quartz, chlorite, and mundic, worth 7*l.* per fathom. In the 20 east the lode is 2 feet wide, worth 10*l.* per fathom. The rise and stopes in back of this level are worth on an average 6*l.* per fathom. We are daily expecting to meet with the Retallack lode in the 20 cross-cut; the ground is favourable, and good progress is being made. The prospects, on the whole, are of a very encouraging character, and we are preparing a good batch of tin for next week's sale.

WEST MARIA AND FORTESCUE CONSOLS.—Wm. Skewis, Jas. Donnal, Aug. 20: Maria Engine-Shaft: In the 60 fm. level, east of the cross-course, the Capel Tor lode is cut through, it is 2 ft. wide, composed of capel, mundic, and copper ore—saving work, looking promising. No lode has been taken down in any of the ends since last report, except that in the 40 east, on West Maria lode, where there is an improvement, the lode being from 3 to 4 feet wide, yielding 4 tons of ore per fathom. We would remark that the ground above this level is standing whole to surface, and the level below (which is 20 fms. in advance) has been driven through ore ground.—Stopes: The lode in the stope in the back of the 50 east, on West Maria lode, is yielding 2 tons of ore per fathom, and that in the stope in the bottom of the 40 east, on same lode, 2 tons of ore per fathom. The Capel Tor lode, in the stope in the back of the 50 east, is yielding 5 tons of ore per fathom, and in the west stope 2 tons of ore per fathom.

WEST WHEAL KITTY.—Aug. 14: In the deep adit end, west of middle shaft, we have been driving by the side of the lode, at 7*l.* per fathom. We have now commenced to take down the lode with four men, at 2*l.* per fathom; the lode is 4 ft. wide, and has a very promising appearance. In the middle adit end, west of western shaft, the lode is 7 ft. wide, worth about 9*l.* per fathom. We have six men stoping the back of the adit level, and nine men stoping the bottom of the adit level, worth about 15*l.* per fathom. At the shallow adit end the lode is 9 ft. wide, but not to value. As to our stamping, the water has greatly fallen off, in consequence of the dry weather. We are now raising more tinstuff than we can stamp; we might still raise a larger quantity if we had stamping power. We are about to put up another stamps against the winter season.

WEST WHEAL TREMAYNE.—S. Roberts, Aug. 20: In the 20 end west we have cut the western part of the cross lode; west of it the lode is divided by a horse of killas about 1 ft. wide, with a branch of good ore on the north 3 in. wide; the south part af it is 6 in. wide, composed of spar, peach, and mundic, intermixed wth black, grey, and coated yellow ore. The lode in the 10, between these two parts ol the cross lode, was unproductive of ore to value; but on the west of this part of the cross lode, and east of the eastern part, there was a good lode; judging from this, and the indications in the 20, I think we may expect an improvement soon. We have to day commenced to prepare to sink a winze in the bottom of the 10, and as soon as we drive the 20 about 9 feet further, we intend to rise against it. We think it best to rise here, as there is no difference in price of ground.

WHEAL AGAR.—E. Rogers, Aug. 21: We have opened on the branch split off from the main lode at the 140 fm. level 2 fms., and find it running in a south-eastly direction, and of little value, consequently we have put the men to drive on the course of the lode, which is improving in size, and producing saving work for tin. No other change.

WHEAL BULLER.—J. Inch, J. Brown, Aug. 21: Stevens's Shaft: The 92 fm. level east is producing tin, but not to value. The 92 west is poor. The 80 east is worth for tin 25*l.* per fathom. The winze sinking under this level is worth 30*l.* per fathom. No 1 and 2 stopes, under the level, are worth 25*l.* and 30*l.* per fathom. The stope in back of this level is worth 30*l.* per fathom. In the winze under this level, west of shaft, the lode is large, but poor for tin. The 70 east is poor. The 60 west, on the north branch, is producing 1 ton of copper ore per fathom, of good quality.—Hocking's Shaft: The 80 east is poor. The 70 west is worth 12*l.* per fathom.—Kistle's Shaft: We have forked the water to the 100 fm. level; we shall now commence to clear the stuff at this level. We have no tin to report on in the 90 fm. level cross-cuts as yet. The winze under the 80 fm. level is worth 35*l.* per fathom. No other change.

WHEAL CREBOR.—J. Gifford, Aug. 20: In the 120 west we have cut into the lode 7 feet, but not through it; so far it is composed of capel and quartz, with spots of mundic and copper ore intermixed, but of no value. We hope to communicate the rise in the 108 east with the winze in the 96 by the end of this week. The ground in the 96 cross-cut south is still favourable for driving. No other change in the mine since last report.

WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Aug. 17: The lode in the 120, east of the old engine-shaft, is 18 in. wide, of spar, &c. The lode in the 110 east is 15 in. wide, of gossan and quartz, with good stones of copper ore—a kindly lode. The lode in the 90, east of the cross-cut, is 6 in. wide, and worth ½ ton of ore to the fathom. We hope to resume the sinking of the new shaft below the 120 fm. level next month. We are glad to tell you that the tributers are getting fair wages, and we hope to sell by the meeting a good pile of tin.

WHEAL KITTY.—W. Teague, W. Polkinghorne, S. Davey, Aug. 17: In the 82, driving west of Holgate's shaft, the lode is 2 ft. wide, and producing good saving work, opening tribute ground.—Pryor's Lode: In the new shaft, sinking under the 82, the lode is worth for tin 18*l.* per fm., with a very kindly appearance for an early improvement. In the 82, driving west of shaft, the lode is 4 ft. wide, and worth for tin 14*l.* per fm. In the 82, driving east of shaft, the lode is at present rather disordered, but we think in the next 6 ft. driving a decided improvement will take place, symptoms of which already appear. In the 65, driving west of shaft, the lode is worth for tin 12*l.* per fm.; the level continues to open up good tribute ground. The lode in the winze sinking under the 54 fm. level is worth for tin 15*l.* per fm.—a very kindly lode. We hope to resume the sinking of the winze on the caunter lode in the course of the coming month; the water, which was the means of suspending this for a short period, is now being let down by the driving of the 82, east of new shaft. In the 44, driving east of shaft, the lode is yielding good saving work for tin. We have opened on a branch in the 34, west of cross-cut, which is driven west of the slide, and it has the appearance of the lode, but sufficient has not yet been done for thorough confirmation. We are still driving the 24 east, on Vottle lode; the lode is poor. In the adit level, driving west, the lode is unproductive. We think, on the whole, our prospects are more cheering than they were three months since, and with an improved price for tin we hope to do better for the coming three months than for those for which the accounts are this day passed, hoping for the next three months to raise about 50 tons of tin.

WHEAL KITTY (Uny Lelant).—W. Rosewarne, Aug. 22: North Russoe Lode: The lode in the 150, east of No. 2 winze, is worth 4*l.* per fm. The lode in the 150, west of No. 1 winze, is worth 3*l.* per fm. The lode in No. 3 winze, sinking below the 140, is worth 5*l.* per fm.—South Russoe Lode: The lode in the 30, east of the boundary shaft, is worth 6*l.* per fm. The lode in the 30, west of the boundary shaft, is worth 4*l.* per fm. The lode in the winze sinking below the 20, east of shaft, is worth 4*l.* per fm.—North Gowan Lode: The lode in the 50, west of the rise, west of Rogers' shaft, is worth 4*l.* per fm. The carbonas in the 120, west of Bolitho's rise, and in the 60, west of Rogers' shaft, are looking better. There is no alteration in any of the other bargains to notice.

WHEAL MARY ANN.—P. Clymo, J. Harris, J. Stevens, J. Skeat, Aug. 22: The shaftmen having completed the trip-plat at the 230 (Clymo's shaft), have now commenced to drive a cross-cut towards the lode at this level. In the 220 north the lode is 2 ft. wide, worth 6*l.* per fathom; in the same level south it is 2½ ft. wide, worth 10*l.* per fm. In the 210 north it is 1½ ft. wide, producing stones of lead; in the same level south it is 4 ft. wide, worth 17*l.* per fm. In the 200 north it is 1 ft. wide, producing stones of lead; in the same level south it is 3 ft. wide, worth 8*l.* per fm. In the 190 north it is 2 ft. wide, worth 9*l.* per fathom; in the same level south it is 1½ ft. wide, worth 7*l.* per fm. In the 180 north it is 3 ft. wide, worth 8*l.* per fm. No alteration to notice in the 180 south since last report. The stopes and pitches are producing much as usual. We have this day sold two parcels of lead ores to Messrs. the Trustees of the Treffry Estate—No. 1, computed 54 tons, at 24*l.* 7*s.* 6*d.*; and No. 2, computed 40 tons, at 15*l.* 7*s.* 6*d.* per ton.

WHEAL SPARNON.—Wm. Tregay, E. Chegwin, Aug. 17: The lode in the shaft is 2 ft. wide, composed of capel, quartz, gossan, prian, and mundic. We expect to sink 3 fms. further to meet an intersection of branches; here we have reason to expect improvement.

FOREIGN MINES.

ST. JOHN DEL REY MINING COMPANY (Limited).—Advices received Aug. 3, per steamer Oneida.

Morro Velho, June 29.—GENERAL OPERATIONS: Since writing the monthly summary on the 17th current, our general operations have gone on with their usual regularity. The supply from the mines has been good and large, affording sufficient ore for the stamps' consumption to admit of our keeping *St. John's Day as a holiday* for the whole establishment. A great variety of sports, national and Brazilian, and African dancing were carried on during the day, and the evening was spent in the large store, which was well filled with both English and Brazilians, who were much pleased with the evening's entertainments.

MINES.—We have had a very full attendance of native borers during the past fortnight, and more than an average amount of duty has been performed. There has been a large quantity of stone delivered on the spalling floors, and although we have had the generally observed holiday of Corpus Christi, and also St. John's Day wholly kept as a holiday, still we have had a good supply of stone, and quite ore enough for the stamps' consumption. The work in the mines has been carried on with regularity—the pumps have performed well, and the hauling has proceeded steadily. The stoping has been done effectively, and a large force kept employed on the timberwork. There is no change to report in the lode. The quantity and quality of mineral continues as heretofore.

EXPLORATIONS.—These are being prosecuted with as large a force as can be advantageously employed on them. The levels in the upper part of the Cachoeira have given us an acceptable supply of ore during the past fortnight.

REDUCTION DEPARTMENT.—There has been a little decrease in the water supply experienced, and especially from the longer and upper water-course. This has been more sensibly felt at the Praia works, where the whole of the water passing over the establishment is employed to drive the two water-wheels at those works. The spalling has been carried on with spirit and regularity, a very large amount of killas has been rejected, and a considerable part of the most suitable broken, and conveyed to the Praia stamps for consumption in the re-treatment of sand there. A fair amount of duty has been done in the department, and the sand subjected to treatment in the amalgam process has been passed with expedition and regularity.

GOLD EXTRACTED TO DATE.—The produce extracted by the stamps during the second division of June, being a period of 10 days, amounts to 15,868 oits. It has been derived as follows:—

	Oitavas.	Tons of ore.	Oits. p. ton.
From General stamps	9,175	from 1278·8	= 7·174
,, Herring ditto (Bahu ore)	4,181	421·9	= 9·991
,, Lyon ditto, M. and W. Cachoeira	2,512	348·0	= 7·218
Total	15,868	2048·7	= 7·745

The quantity of ore reduced is quite an average for this season of the year, and the yield per ton gives a higher standard than that obtained during the first division. The return from the General stamps is about the same, but that from the Bahu and Middle and West Cachoeira ore is better. The supply at present affords ore to give an equal return to the end of the month.

Advices received Aug. 19, *via* Bordeaux, ex steamer Navarre.

Morro Velho, July 17.—PRODUCE: The gold return for the month of June amounts to 51,543 oits. It has been derived as follows:—

	Oitavas.	Tons of ore.	Oits. p. ton.
From General stamps	27,212	from 3737·9	= 7·280
,, Herring ditto, Bahu ore	12,413	1260·4	= 9·848
,, Lyon ditto, M. and W. Cachoeira	7,331	1023·1	= 7·165
Total stamps produce	46,956	6021·4	= 7·798
Arrastre produce	1,952		= 0·324
	48,908		
Praia stamps and arrastres produce	2,635		= 8·122
Total produce	51,543 oits.		

The above gold return, compared with that obtained in May shows considerable improvement, both as regards the entire return and the standard yield per ton from the ore treated. This may be seen as follows:—

Days.	Tons of ore.	Oits.	Oits. per ton.	Oits. per diem.
May 31	6528	47,990	= 6·950	= 1548
June 30	6021	51,543	= 8·122	= 1718

This exhibits a very pleasing improvement in the monthly gold return, and still more so, from the daily return of produce from the stamps. It arises chiefly in the yield from the Bahu east, and the middle and west Cachoeira ores.

COST AND PROFIT.—Taking the produce for June ..... 51,543 oits.
Deduct loss in melting into bars ..... 247 oits.
There remains ..... 51,296 oits.
Which at 7*s.* 9*d.* per oit. amounts to £19,877 4 0
Cost—Labour....Rs. 62,166 $071 } =Rs. 112,429 $014, 1*s.* 11*d.* p. milrei 10,774 8 11
Other charges Rs. 50,262 $943 }
This shows a profit on the working for June of ..... £ 9,102 15 1

Prices generally, as was anticipated some time ago, have been more favourable, but our labour cost is heavy, and incidentals and charges at Rio heavier than usual, notwithstanding that the profit on the month's working is large and satisfactory.

FERNAM PAES ESTATE.—The cost at Gaia for June amounts to Rs. 3347 $740, at 1*s.* 12*d.* per milrei = 320*l.* 16*s.* 6*d.*

MINES.—The attendance of natives in mines has given the following averages:

Natives boring daily	260·42
Others ditto	16·45 = 276·87
Natives working daily	417·58
Others ditto	448·29 = 865·87

This is about 33 less than we had in May, not arising, however, from a smaller number in attendance, but owing to the number of holidays which occurred in June, observed by the Brazilians. The quantity of mineral raised amounts to 10,167 mine wagons, being equal to 36·83 wagons per borer.

In the CACHOEIRA MINE the sump has been sunk during June 5 feet vertically and the stoping east and west from the sump prosecuted with regularity. A large amount of log timberwork has been accomplished in this mine during the month. The inclined planes and the shaft have been extended one set. The block pillar work has been forwarded considerably, and a fair amount of repairs and reprieves effected.

In the BAHU MINE the sump has been sunk 3 ft. 3 in. vertically, and the bed of the shaft extended by runners being laid on the cross pieces. The stoping has been carried on regularly and steadily, and has produced a good supply of ore for the stamps. Not much log timberwork has been done in this mine during the month.

The LODES IN BOTH MINES continue without change worth noting.

EXPLORATIONS.—The level in section No. 37, East Cachoeira, has been extended 3 ft. 7 in. In the same quality of lode as previously reported. The part is now giving increased stoping space as the level is extended eastward.

At the level in section No. 85 the end has been extended 1 ft. 5 in. In the lode, which continues of the same size and quality, giving a little addition to supply for the spalling-floor.

GAIA MINE.—The opening on the lode, on both sides of the level and tramway, has been commenced, and 30 wagons of ore have been trammed out, in anticipation for the stamps. At the latter there is a large force now employed, and the work is being prosecuted steadily.

REDUCTION DEPARTMENT.—The general duty performed during June may be seen from the following tabular statement:—

Stamps heads working 30 days, average	133·11 heads.
Ditto working 135 heads, average	29·58 days.
Arrastres each worked, average	24·50 days.
Produce of each stamp head per diem	11·75 oits.
Produce of each arrastres per diem	4·87 oits.
Produce of arrastres on that of stamps	4·15 per cent.
The quantity of ore reduced amounts to	6021 tons
Ditto of killas rejected, and sent to Praia	3265 tons.
Ditto of sand treated, which yielded 14·97 oits. per cubic foot.	3376 cubic feet,

The unrecovered gold contents are shown as 2·526 oits. per ton, or 23·72 per cent.

During the month there has been a good and large supply of stone received from the mines, but it has contained a large proportion of killas. The water supply, though good for the month of June, has diminished sensibly, and a little less duty daily has been done by the stamps than during previous months. The spalling has been done about the usual size, and the general work, both on the floors and in the amalgamation process, has been carried on with regularity.

PRAIA.—The produce from these works has been derived as follows:—

From stamps employed with killas and sand	1658 oits.
From arrastres re-treating sand only	977 oits.
Total	2635 oits.

The above is very good produce; the arrastres have given a better daily produce (5·461 oits. per arrastre) than those of Morro Velho, which get the sand first, and which gave only 4970 oits.

GOLD EXTRACTED TO DATE.—The produce from the stamps during the first division of July, being a period of 11 days, amounts to 17,857 oits. It has been derived as follows:—

	Oitavas.	Tons ore.	Oits. p. ton.
From General stamps	9,783	from 1272·6	= 7·687
,, Herring ditto, Bahu ore	4,854	444·5	= 10·922
,, Lyon ditto, M. and W. Cachoeira	3,220	391·5	= 8·224
Total stamps produce	17,857	2108·6	= 8·468

The duty performed by the stamps is fair, considering the diminished supply of water we have, and the gold return from the mineral treated is very good, giving 1623 oitavas per diem from the stamps only. This is also the highest standard yield we have had from the stamps for some time past. The improvement is from the eastern part of the Bahu and the western part of the Cachoeira.

DON PEDRO NORTH DEL REY GOLD MINING COMPANY (LIMITED).

Balance of profit and loss account Jan. 1, 1867	£ 1,693 18 10
Profit from January to June inclusive	32,216 8 1
Total	£33,910 6 11
Less interim dividend of 1*s.* 6*d.* per share and income tax, declared May 31	5,807 7 1
Balance	£28,102 19 10

Capt. Thomas Treloar reports—The gold return for June amounts to 15,553 oits. (= 1794 ozs. troy). The produce, however, is below that for any month since February—still it is a good return; but sudden fluctuations in produce is characteristic of jacotinga mines. So a few large monthly returns should not cause too much exhilaration, nor small ones great depression. A jacotinga mine of the right sort—and Macquiné has given tangible proof that it is so—is sure to render good yearly accounts to the proprietors. Extract from letter dated July 18:—At Maquiné the middle line of gold has reached the fissures, and it has greatly declined. Nothing besides this has occurred calling for special remark since writing my report. Produce to date, about 6000 oits.

ANGLO-BRAZILIAN GOLD.—Captain Thomas Treloar reports—The produce for June amounts to 3289 oits. (= 379 ozs. troy).

PRODUCE AND COST.

Produce, 3289 oits. at 9*s.*	£1480 1 0
Cost	1877 5 1
Loss	£ 397 4 1

The produce exceeds that for May, with one working day less, by 432 oits., and the yield of stone has improved from 2·27 oits. per ton to 2·65 oits. per ton, or 16 per cent. This is encouraging, and, seeing how well the different sections are looking, we are sanguine that a further improvement will take place in July.

THE NEW IRON FIELD NEAR MALTON.—There is now every prospect that the working of the iron underlying the Castle Howard and Kirkham estates, a few miles west of Malton, will be at once proceeded with. These extensive mining properties are proved to be of a very valuable description, and will soon be developed in a most satisfactory manner. The quantity of minerals is almost unlimited, and they are leased on very favourable terms. The York Malton Railway and the navigable river Derwent divide the properties. The seam is 12 ft. thick, and allowing a large margin for outcrops, the Kirkham side (East Riding) will supply two of the largest blast furnaces for 80 years, while on the Castle Howard (North Riding) side the mineral is practically inexhaustible The beds are in the upper oolite, and the testings give an average of 31 per cent. of pig iron, of a quality to adapt it to the Bessemer process. The quality improves as the drift gets under the hills. Limestone, brick-clay, and everything required for extensive works are on the spot, and from the facilities for works close by the

mines, the mining cost is likely to be very moderate, and pig-iron is estimated to be produced much under 2*l.* per ton—a profitable figure, even at the present low prices. A company has been formed, whose capital is nearly all subscribed in which the lessees have merged their interests, and the works will be constructed by Mr. Beckton, C.E., of Whitby. There seems every likelihood that the rural vales around Malton will soon become the busy centre of an iron-yielding country.

IMPROVED BLASTING MATERIAL.

Although gun-cotton has been very generally admitted to possess many great advantages as a blasting material, it has failed to come into general use, owing to the inconvenience of getting the workmen to follow a somewhat different routine in blasting from that they have been accustomed to; Mr. Rollason, of Limehouse, has, therefore, patented an invention by which the miner or collier shall be enabled to use his gun-cotton cartridge precisely as if it were a gunpowder cartridge. According to Mr. Rollason's invention, a case is made of paper or other suitable material, similar to a rocket-case, and, being closed at the bottom, is placed in a mould, after which the end of a fusee commonly used in mining operations is placed inside the case, either on one side of it or down the centre. The end of the fusee rests on the bottom of the case. The case itself is then to be filled with gun-cotton, or other similar compound, rammed down very tight with a rammer, or by hydraulic pressure, the fusee during the filling of the cartridge being protected from injury by a groove which fits in the rammer. When the case is filled it is closed at the top, either by tying or by a clasp. By this means is produced a cartridge of great strength, which will withstand rough handling, and possesses the additional advantage of being fired at the further or inner end.

When making cartridges for artillery purposes, or for sporting or other guns or rifles, the gun-cotton, or pyroxyline compound, may be modified or reduced in strength or explosive power by mixing with it unprepared cotton, wool, paper pulp, or other inexplosive fibre or pulverised material. As the compound in such a case would burn or explode slowly, it would be desirable to place upon it, before inserting the ball or shot, some waterproof wadding, or other suitable material, so as to prevent the escape of the gas; if, on the contrary, it is desired to increase the explosive power of the cartridges, as will frequently be the case for mining purposes, he saturates the gun-cotton, or pyroxyline, of which they are composed in a concentrated solution of chlorate or nitrate of potash, or other analogous compound, the chlorate of potash being preferred, or the pyroxyline, or some part of it, may be saturated with nitro-glycerine. The gun-cotton, or pyroxyline, thus prepared, should be well dried before being rammed into the cartridge cases. When hydraulic pressure is employed to compress the pyroxyline the drying is not of very much consequence. When the case is filled it is closed at the top, either by tying or by a clasp, or other suitable means, except when hydraulic pressure is used, when a simple wrapper will suffice, and there will be no occasion to close the ends of the cartridges. A cartridge of great strength and explosive power, which will stand rough handling, and possess the additional advantage of being fired at the further or inner end, can be thus produced with great facility and economy.

Another kind of cartridge can be made, in all respects similar to the foregoing, except that the fusee in this instance is not inserted, but in its place there is a rod of wood or metal, only of larger diameter, which when the cartridge is filled is withdrawn, leaving a hole down the side, or centre, of the inside of the cartridge. By this means a miner is enabled to fire the cartridge by the means of a straw fusee, which is well known, as the fire from the fusee will penetrate the whole length of the cartridge down the side aperture. Either of the above cartridges may be waterproofed before being filled or after, by being coated with any suitable waterproof material, or the cases may be made of some substance already waterproofed. If the cartridge be compressed by hydraulic power, it will be sufficiently hard to admit of boring a hole through any part.

In making fusees for the improved cartridges, instead of using gunpowder, gun-cotton thread, or gun-cotton tubing is employed, and may be inserted down the side or other opening or perforation in the cartridge, as already described. This gun-cotton thread or tubing may be saturated with a solution of chlorate or nitrate of potash, as already mentioned, and when dry may be placed inside a tube made of metal or fibre, the same as the ordinary blasting fusee, or the thread or tubing may be used alone.

Saving Life after Colliery Explosions.—In order to facilitate the rescue of miners who may be unfortunate enough to be in a colliery when an explosion occurs, Mr. C. J. Pownall, of the Union Club, proposes to construct in various parts of the underground workings of the mines a number of chambers, which shall be capable of holding a number of men. These chambers are to be hollowed or tunnelled out of the sides of the seam or workings, or to be of wrought or cast iron, timber, brick, stone, or other suitable material, which shall be so placed in recesses hewn or excavated at the sides of the workings that they shall be exposed as little as possible to the violence of the explosion. These chambers, and the door or entrance to them, can be, if found necessary, fire and water proof, and are to be rendered as air-tight as possible, and to have a loaded valve to each, for the escape of the vitiated or superfluous air from the inside. Each of these chambers is to be supplied with pure or fresh air, by means of air pumps, fans, or blowers, driven by the wind or the pumping engines of the pit, or other suitable motive power; and this pure air is to be conducted into the chambers through wrought-iron, cast-iron, India-rubber, or other pipes, which should be laid under the floor or surface of the workings, and carried in at the back of the air-chamber, to protect them from injury by explosion or otherwise. Wires, properly insulated, can be laid through or alongside of the air-pipes, for the purpose of affording the means of telegraphic communication from the chambers to the pit bank. When it is expected that noxious gases are accumulating, or have accumulated, in the pit, from the effects of an explosion, or otherwise, instead of the miners to whom the explosion has not already proved fatal having to make their way to the bottom of the shaft, in doing which they are generally overcome by these gases, Mr. Pownall intends that they shall take shelter in those chambers, which are suitably placed to be most readily reached by them. In these chambers they could remain for a considerable period (fresh air being continually supplied by the pumps or fans), until relief was afforded to them, or until they could with safety reach the bottom of the shaft; and for this purpose he further proposes that there should be kept in each chamber a number of ordinary air-belts, or elastic bags, already charged, or which could be charged, with air when required for use from valves or taps on the air supply pipe in the interior of the chamber, and from these belts or bags each man could inhale pure or fresh air while making his way through any noxious gases towards the shaft.

Petroleum as Fuel for Steam-Boilers.—The process introduced by Col. Foote, of Boston, U.S., consists in supplying a small retort in the furnace of the boiler with petroleum, superheated steam, and air. The oil is led through a small pipe by gravity to the retort, from a reservoir at a distance. The steam is supplied by the boiler, and it is claimed to be superheated and deoxidised on its passage to the retort, and the air is injected by an air-pump worked by the engine. The steam is superheated and deoxidised by passing through a red-hot coil of pipe, filled with iron filings or shingle nails. This mixture issues from a number of burners distributed over the area of the furnace, and so arranged, also, as to heat the retort and coil of pipe before mentioned. The pipes are about ¾-in. gas-pipe, radiating from the retort, the ends turned upward, into which is inserted a fluted conical plug of cast-iron, about 3 in. long, ending at the top in a disc of the same metal, about 3 inches in diameter. These plugs, discs, pipes, and retort are kept at a red heat by the action of a fire, and serve the purpose of spreading the gases as they inflame and issue from the pipes, and distribute it throughout the furnace. By the aid of stop-cocks in each of the three pipes conveying petroleum, steam, and air to the retort, the character and intensity of the fire can be regulated and adjusted instantly and at pleasure; or the fire can be immediately extinguished and re-lighted, so long as the pipes and plugs remained red hot. The flame produced was of a bluish-white colour, denoting perfect combustion, and of a very high temperature.

The Petroleum Trade—Present and Future.—The following is an extract from the circular of Broadbridge and Co., Liverpool:—

A fair exposition of the present and prospective state of this article (now that the season is about commencing) may be interesting. The figures are adopted from the best information that can be obtained, and though there may be some irregularity in detail, the aggregate will not be far wrong.

America.—Total shipments from all the ports from Jan. 1, 1867, to Aug. 1, 1867, 894,800 barrels; same time 1866, 750,000 barrels: 1866 was the greatest American export year on record, yet 1867 eclipses it by 144,800 barrels up to date.

Europe.—Stock in London, August 19, 1867, 69,000 barrels; same time 1866, 35,000. Stock in Liverpool this date, 1867, 45,000 barrels; same time 1866, 10,000. Stock in Antwerp this date, 1867, 90,000 barrels; same time, 1866, 46,000. Stock in Antwerp, loading and afloat, 1867, 137,000 barrels; same time, 1866, 87,000. Stock in Bremen, this date, 1867, 65,000 barrels; same time, 1866, 30,000; loading and afloat, 1867, 160,000.

It is estimated upon good authority that the quantity now in stock and loading for Antwerp, Bremen, Rotterdam, and Hamburg is over 500,000 barrels.

Prices.—London, to-day's quotations, 1s. 3½d. to 1s. 4½d.; Liverpool, 1s. 3½d. to 1s. 4d.; Antwerp, 1s. 2½d. to 1s. 3d.; Bremen, 1s. 2½d. to 1s. 3d.; and Hamburg, 1s. 3d. These quotations show that the prices are lower at the great continental consuming ports than they are in this country, which is having the effect of drawing all the floating cargoes here, and may level or lessen our prices to a foreign standard.

Sulphur.—In the extraction of sulphur from the Romagna sulphur stone, Mr. Brunfaut, of Brussels, as a substitute for the process (which involved much loss) previously in use, employs an apparatus consisting of a horizontal iron cylinder, having a sort of Archimedes screw within along its whole length, and turning more or less slowly, according to the nature of the mineral under operation. The latter is poured in through a funnel, and when it has sufficiently undergone the action of the cylinder is let out again on the other side, hot air or steam under a pressure of three atmospheres being constantly introduced into the cylinder, in order to keep up the temperature. By this means 150 cubic metres of the mineral may be disposed of in twenty-four hours.

Gold Fields of Victoria.—A pamphlet by Mr. R. L. M. Kitto, M.E., has just been issued through Mr. Effingham Wilson, of the Royal Exchange, under this title, embracing statistics gathered from the various departments of the Victorian Government, and other sources. Some details as to the nature of the book will be given next week.

*** With this week's Journal we give a Supplemental Sheet, containing the report of the Proceedings of the South Wales Institute of Engineers, at their meeting just held, and at which papers were read on Mechanical Ventilation, by Mr. G. Cope Pearce; on the Structure of Iron, by Mr. W. Vivian; on the Cornish Engine, by Mr. M. Loam; on Pumping and Winding, by Mr. G. C. Pearce; and on the Coal Brasses of the South Wales Coal Field, by Mr. Adams; and an interesting series of discussions upon other papers took place; Paris Exhibition—No. XVII.; Practical Iron Manufacture—No. III.; New Tunnelling and Quarrying Machinery; Machinery for Dressing Slates (with engraving); Foreign Mining and Metallurgy, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—London, August 23, 1867.

COPPER.	£ s. d.	£ s. d.
Best selected..p. ton	83 0 0–	84 0 0
Tough cake and tile	79 0 0–	80 0 0
Sheathing & sheets.	81 0 0–	83 0 0
Bolts	83 0 0–	—
Bottoms	85 0 0–	—
Old (Exchange)	72 0 0–	—
Burra Burra	85 0 0–	86 0 0
Wire.....per lb.	0 1 0–	0 1 0⅛
Tubes	0 0 11½	1 0

BRASS.	Per lb.
Sheets .....per lb.	9d.–10d.
Wire ..... „	8½d.-9½d.
Tubes ..... „	10½d.–11d.

Yellow Metal Sheath.p. lb.	7¼d.–	—
Sheets ..... „	7d.–	

SPELTER.	Per ton.
Foreign on the spot.	£20 17 6– 21 0 0
„ to arrive ..	20 17 0– 21 0 0

ZINC.		
In sheets	£27 0 0–	—

TIN.		
English blocks	91 0 0	
Do., bars (in barrels)	92 0 0	
Do., refined.....	94 0 0	
Banca	92 0 0	
Straits	£87 0 0–	87 10 0

TIN-PLATES.*	Per box.
IC Charcoal, 1st qua.	1 7 6– 1 9 6
IX Ditto, 1st quality	1 13 6– 1 15 6
IC Ditto, 2d quality..	1 5 6– 1 7 6
IX Ditto, 2d quality..	1 11 6– 1 13 6
IC Coke.....	1 3 6– 1 4 6
IX Ditto	1 9 6– 1 10 6
Canada plates, p. ton..	13 10 0– —
Ditto, at works	12 10 0– —

IRON.	Per ton.
Bars Welsh, in London	6 10 0– —
Ditto, to arrive	6 10 0– —
Nail rods	7 0 0– 7 10 0
„ Staffd. in London	7 10 0– 8 10 0
Bars ditto	7 10 0– 9 10 0
Hoops ditto	8 10 0– 9 12 6
Sheets, single	9 5 0–10 0 0
Pig No. 1, in Wales ..	3 15 0– 4 5 0
Refined metal, ditto..	4 0 0– 5 0 0
Bars, common ditto..	5 15 0– 6 0 0
Do. mrch. Tyne or Tees	6 10 0– —
Do., railway, in Wales	5 10 0– 6 0 0
Do., Swed. in London.	10 5 0–10 10 0
To arrive	10 5 0– —
Pig, No. 1, in Clyde ..	2 14 3– 3 0 6
Do. f.o.b. Tyne or Tees	2 9 3– —
Do. Nos. 3, 4, f.o.b. do.	2 8 6– 2 7 0
Railway chairs	5 10 0– 5 15 0
„ spikes	11 0 0–12 0 0
Indian Charcoal Pigs, in London p. ton..	7 0 0– 7 10 0

STEEL.	Per ton.
Swed., in kegs(rolled)	14 5 0– —
„ (hammered)	15 0 0– —
Ditto, in faggots	16 0 0– —
English, spring	17 0 0–23 0 0
QUICKSILVER (p. bottle)	6 17 0– —

LEAD.	Per ton.
English Pig, com.....	19 15 0– —
Ditto, LB.....	20 0 0– —
Ditto, WB	21 15 0– —
Ditto, ordinary soft†..	20 0 0– —
Ditto, sheet.....	20 10 0–20 15 0
Ditto, red lead	20 15 0–21 5 0
Ditto, white	27 0 0–30 0 0
Ditto, patent shot....	23 0 0– —
Spanish.....	19 5 0–19 10 0

* At the works, 1s. to 1s. 6d. per box less.

† A Derbyshire quotation: not generally known in the London market.

Remarks.—We are glad to be able to state that the more favourable condition of the Metal Market mentioned in our last still continues, and that gradually prices are becoming decidedly firmer, with every prospect of a still further improvement. The amount of business transacted also is decidedly better, and the feeling now seems to be pretty general that the worst is past, and that we are now entering upon a much more satisfactory state of affairs, and it is to be hoped that nothing will arise to interfere with or retard the activity which we trust is certainly, though perhaps gradually, approaching. The aspect of affairs on the Continent now seems to be eminently peaceful, and we trust that the meeting of Sovereigns now taking place will tend to the preservation of that state of peace so essential to the promotion and extension of commercial prosperity. We think that the combination of these propitious circumstances is calculated to bring forward a number of orders, which may possibly have been kept back while they continued adverse, and that soon we may be able to announce that an abundance of orders are coming into the market. We may also expect that purchases of a speculative character will soon be made now that affairs are beginning to look brighter. The advices from India are of a favourable character regarding metals, the prices of which are, in most instances, becoming higher, while the demand is also much improving; and we hope to find that this state of things will not only continue, but increase, as it is of great importance that our Eastern trade should be flourishing.

Copper.—A decided improvement has taken place in the market for this metal during the week, and prices have become much firmer. Business has been in tough cake at 79*l.*, and manufactured at 81*l.* Wallaroo is now quoted at 83*l.* 10s. to 84*l.*, and Chili bars at 70*l.* 10s. The tendency of the market is evidently upward, and business is much more steady.

Iron.—In Staffordshire, although no great amount of work has been done during the week, yet the tone of the trade is more cheerful. There is more doing than last quarter, and it is hoped the autumn demand for the United States and British North America will be good, and that railway orders will continue to be given out. The demand for plates for shipbuilding shows at present no improvement. In Welsh, the ironmasters report the trade as being without any particular animation, the demand from the principal home markets being still very limited. More enquiries are being made on behalf of the railway companies, but actual contracts do not follow in proportion; there is a probability, however, that there will be considerable rail requirements in the market before long. Foreign advices are a little more satisfactory, and buyers show less reluctance in entering into fresh transactions; Russia and the United States are the best markets. Last month the exports reached 10,536 tons, of which 4800 tons went to Russia, and 2200 tons to America. In Swedish iron business is not quite so active, still the demand continues fair. In Scotch pig-iron a good business has been done during the week, and some large shipments have taken place. The price has advanced to 53s. 3d. cash.

Lead.—A moderate amount of business continues to be done, and prices remain without alteration.

Tin.—The market for foreign has made considerable improvement during the week, and a large business has been done in Straits at advanced prices. Early in the week transactions occurred at 86*l.* 10s. cash, but the demand continuing, and it having transpired that the supply of Banca had fallen off, prices again went up, and business was done at 87*l.* cash, and more recently at 87*l.* 10s. cash, and 88*l.* for arrival, with every prospect of a still further advance. The price of Banca in Holland has risen to 53½ fls. English is in very good demand, at official prices.

Spelter.—The market remains quiet, with only a moderate amount of business doing. The quotation on the spot is 20*l.* 17s. 6d. to 21*l.*

Tin-Plates.—A good business is still doing, and makers are enabled to keep their works in regular employ.

Steel and Quicksilver remain as formerly.

Middlesbrough, Aug. 22.—The "Iron Trade Review" states:—There is no particular change to report in the Cleveland Iron Trade. Stocks in warrant stores rather less than last week; they are now 75,006 tons. Not much doing in warrants. Finished iron trade a shade better. Rail mills fairly supplied with orders. Bars and plates in less request. More hopeful tone about the general trade.

Coal Market.—The arrivals this week amount to 128 ships. House coals have continued a dull sale, and prices have suffered a further reduction of 6d. per ton. Hartley's have remained steady, at previous prices. Hetton Wallsend, 19s. 6d.; Haswell Wallsend, 19s.; Eden Main, 17s. 6d.; Framwellgate Wallsend, 17s. Unsold, 10 cargoes; 35 ships at sea

Exports of Coal.—By the Monthly Circular of Messrs. Higginson, Liverpool, we learn that the quantity of coal exported in July was 855,764 tons, against 906,052 tons in the corresponding month of 1866, showing a decrease of 50,288 tons. The particulars are—From the Northern ports, 447,492 tons; Yorkshire, 24,415 tons; London, 7854 tons; Liverpool, 58,954 tons; Severn ports, 258,782 tons; and Scotch, 58,267 tons. The increase was—London, 5456 tons; Liverpool, 1478 tons. The decrease—Northern ports, 23,612 tons; Yorkshire, 17,533 tons; Severn ports, 4271 tons; Scotch ports, 11,806 tons. Total January to July, 5,323,298 tons; same time last year, 5,388,182 tons—showing a decrease of 64,884 tons.

There is very little change to report upon in the Mining Share Market; business is remarkably quiet, and prices dull. The standard for copper ore, we are glad to say, has risen 2*l.* 10s., and the Devon Great Consols sale shows a good rise in copper. At the July sale 1731 tons realised 7577*l.* 6s.; and, according to the produce, the price paid was 67*l.* per ton for the copper in the ore. The present sale (1714 tons) has brought 8100*l.*; and, as it produces 111 tons of copper, it is equal to 73*l.* per ton, or a rise of 6*l.*

West Chivertons shares have had a further rise, to 68, 69. The lode in the 110 is worth 90*l.* per fm., and not yet cut through. The dividend declared to-day, we believe, was 2*l.* per share (6000*l.*), but we have not yet received particulars of the accounts and report. Wheal Chiverton, 7 to 7½; the mine, we hear, is looking well, and no call required. Minera Mine, 170 to 180; from the minutes of the seventeenth annual general meeting, held on the mine on Aug. 9, we learn that the profit on the twelve months' working was 30,369*l.* 10s., and the dividends declared have been 16*l.* 10s. per share, equal to 66 per cent. on the share capital. The reserves in the mine at the end of June, 1866, were estimated at 12,927 tons of lead, and are now 13,660 tons, although between these dates 4862 tons have been raised and sold. The mine is reported as in a sound condition, and with a great promise of large returns from the eastern part of the mine for many years to come. East Lovell, 6¼ to 6½; at the meeting the accounts showed a profit of 660*l.* 9s. 9d. on four months' working, and a dividend of 6s. 8d. per share was declared, leaving 25*l.* 3s. 1d. in hand, with the accounts charged up to April. Chontales have been in demand, and have risen to 5½, 5¾.

Prince of Wales shares have declined to 44s., 46s., owing to the short supply of water rendering it impossible to draw and crush all the stuff from the mine. At the meeting it was hoped that a few showers of rain would remedy this, but rain, so abundant in some places, has been very spare in others; and at the present moment the agents report upwards of 50 tons of ore broken underground, and the levels choked for want of drawing-power, and if not remedied by an increase of water, or a steam-whim, the next sampling will be short. The agent, however, it is said, will make up for the deficiency in the following months, so that the quarter's accounts will show the expected profits; and the halvans on the mine, which could then be returned, would pay for the cost of a steam-whim. Chiverton Moor, 4¾ to 5; at the meeting a call of 2s. 6d. per share was made. Wheal Buller, 20 to 22; the points in operation are worth 187*l.* per fathom; at Kistle's shaft the water has been forked to the 100 fm. level, and the stuff will be cleared at once. The lode in the 60 fathom level west, on the north branch, which last week produced stones of rich copper ore only, is now producing 1 ton of copper ore per fathom of good quality. Clifford Amalgamated, 7 to 7½; East Basset, 15 to 17½; East Caradon, 4¾ to 5¼; East Carn Brea, 2¼ to 2½.

Wheal Crebor shares are enquired for at 4s. to 6s.; at the meeting the accounts showed 493*l.* 5s. 5d. against the company, and a call of 1s. 6d. per share was made. In the winze below the 96 east the lode is worth 15*l.* per fm., and as the same is cut into worth 10*l.* per fm. in the 108 cross-cut east, the agents consider the prospects of the mine more favourable. East Russell, 1¼ to 1¾; Frontino and Bolivia, 7s. to 9s.; Great Laxey, 18s. to 19s. Great Retallack, 4½ to 4¾; the mine has sampled 25 tons of silver-lead ore, for sale next week. Great Wheal Vor, 16½ to 17½; Herodsfoot, 35 to 37; Marke Valley, 4¾ to 5¼; North Crofty, 3¾ to 3¾. North Treskerby shares have been largely dealt in, and leave off 1¼ to 1¾. Providence Mines, 27 to 29; South Caradon, 360 to 370; South Condurrow, 10s. to 12s. 6d.; South Frances, 22½ to 25; Tincroft, 12 to 13; West Seton, 145 to 150; Wheal Basset, 65 to 70; Wheal Grenville, 10s. to 12s. 6d.; Wheal Mary Ann, 15 to 16; Wheal Seton, 105 to 110. Great North Downs, 4 to 4¼; the mine has sampled 348 tons of rich ore for June and July, and estimated to produce 2500*l.*, and a profit of 800*l.* The agent states the returns of ore will increase. Redmoor shares have been in request at 4s. to 6s.; the mine is looking better, and a lode expected to be cut soon in the 64. Devon Great Consols, 400 to 420.

The tone of the Market for Mine Shares on the Stock Exchange is very good, and business in this department wears an improving aspect. St. John del Rey, 60 to 62; Don Pedro, 1⅞ to 1¾; Anglo-Brazilian, 1-16th to 3-16ths prem.; Pestarena, ¼ prem.; Chontales, 1 to 1¼ prem.; Port Phillip, 1-16th to 3-16ths; Rossa Grande, ⅜ to ½; Anglo-Italian, ½ to ¾ prem.; United Mexican, 1⅞ to 2; Cape Copper, par to ¼ prem.; English and Australian Copper, ⅝ to ¾; Kapunda, ¼ to ⅜; Yudanamutana, ¾ to 1⅛; Quebrada, ¾ to 1; Alamillos, ¾ to 1; Scottish Australian, ⅞ to 1⅛; Devon Consols, 400 to 420; West Seton, 147½ to 152½; Wheal Seton, 107½ to 112½. West Chiverton, 68 to 70, and in demand; the lode in the 110 fathom level is worth 100*l.* per fathom, one of the finest courses of ore ever seen in Cornwall; a rock of lead from the deepest part was brought up yesterday, weighing 6½ cwts., and there are pieces of nearly double the weight underground; throughout the mine never looked so well; the usual quarterly dividend was declared to-day (Friday), of 2*l.*, and an increase may be looked for early in the year. Chiverton, 7 to 7½; the prospects are improving. Chiverton Moor, 5; at the meeting, a call of 2s. 6d. per share was made, and the report was of a very encouraging character. At Westminster (Limited), the lode in Thompson's engine-shaft is worth 3 tons per fm., or 7 tons for the length of the shaft, and the 70 east is worth 2 tons per fm.; the 80 east and west are improving. North Crofty shares are firm, and the mine looking well; Great Laxey in demand, at 18 to 19; Great Vor shares are steady, at 16½ to 17. The market closes firm.

Irish Mine Share Market.—Although our market for Government and other standard securities has generally much improved, in consequence of more favourable accounts from London, none of those usually negotiated on our Stock Exchange have kept pace in their upward movement with that of the shares of the Mining Company of Ireland, or of the Wicklow Copper Mining Company. The former (7*l.* paid) closed last week at 16*l.* 10s., but increased enquiry on Saturday sent them finally up to 16*l.* 17s. 6d. and 17*l.* for account. On Monday they rose a further 15s., and on Tuesday a like amount, bringing the price up to 18*l.* 10s., which has induced many sellers to enter their appearance, and the quotation to recede 10s.; but all shares offered under the previous figure having been quickly absorbed, the price has again advanced 7s. 6d. per share, so that they now close at 18*l.* 7s. 6d., or a total advance of 1*l.* 17s. 6d. per share for the week. Wicklow Copper shares (2*l.* 10s. paid), which left off last week at an improvement of 2s. 6d., or 20*l.* per share, have more gradually but very steadily advanced to 20*l.* 10s., giving a total rise for the last few days of 10s. per share, with every appearance of continuing in great demand. As greatly increased attention to one or two mines almost invariably induces comparative neglect of the others, so Connorree shares have again lost their recent rise to 13s., and are again on sale at 11s. 6d. General Mining Company for Ireland shares made about their previous price of 2*l.* 10s. per share, sellers, however, predominating. Want of space compels us to give only an extract of the article referred to in our last on "the Irish Railways" in the *Saturday Review* of Aug. 10, which is here appended:—

"In Ireland a railway system of 1800 miles, with an income of 1,700,000*l.*, occupies the time and pays for the services of 35 boards of directors. In England a single board manages a line with an income of 6,000,000*l.* Clearly 34 out of the 35 Irish boards are useless, and their remuneration is waste. But this is not the only evil of division. Everyone knows, even in England, the suffering inflicted on the public at the junctions of rival lines, and in Ireland all neighbouring companies are in a state of hostility; and the national temperament would exclude the possibility of amalgamations, even if the companies could afford the expense of obtaining parliamentary sanction. The evidence proved that there could be no economy, no profit, no facility for traffic, without amalgamation, and that amalgamation was impossible except in the form of Government absorption. Everything is anomalous in Ireland, and accordingly we find that the highest fares in the world are charged in the country which possesses the poorest population, and the insolvency of the many little companies precludes all hope of any amendment in this essential condition of prosperity. In the face of these facts it is not surprising that the Irish railway companies should be as anxious to be bought as their brethren in England are to retain their independence, even in the midst of the troubles that now oppress them. But is the arrangement practicable? On this point, too, Mr. Monsell was furnished with unanswerable evidence. The selling value of the Irish lines is under 20,000,000*l.* and their income even now is 900,000*l.*, which is 260,000*l.* in excess of Government interest on the purchase money required. This would afford a large

margin for the reduction of fares, and would be supplemented by the saving of 100,000*l.* or more resulting from united management. To those who objected that Government management might be inefficient the answer was ready that, according to the evidence of leading railway authorities, there would be no difficulty in leasing the whole concern to capitalists on terms that would make the country safe against loss, and secure enormous facilities for cheap and rapid traffic, which are now wholly unattainable. * * * * In every imperfectly developed country, the rules which are sound enough for a flourishing community lose much of their application. Private enterprise was incapable of making railways in India, and the Government stepped in, though by no means in the wisest way; and the result is that India is covered with remunerative lines of railway. So, when it is proved that Ireland is incapable of working her railways to the advantage of the community, or the profit of those interested in them, there is at least as strong a motive for meeting the difficulty by Government interposition. And if it is to be met at all, no one can doubt that a purchase is better economy than any system of subsidies, or that the moderate fares which Government or its lessees could afford to take would be infinitely more conducive to the general welfare than the wretched plan of successive petty loans by which it has been vainly attempted to foster and sustain the railway enterprise of Ireland. If the railway companies themselves can resist the temptation of preying upon such a purchaser as the Government, we have no doubt that the enquiries about to be instituted will result in a transaction from which, perhaps, Ireland will hereafter date her tide of prosperity."

At Truro Ticketing, on Thursday, 3329 tons of ore were sold, realising 14,903*l.* 12s. The particulars of the sale were:—Average standard, 112*l.* 3s. 0d.; average produce, 6¼; average price per ton, 4*l.* 9s. 6d.; quantity of fine copper, 214 tons 9 cwts. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
July18....	4139	£109 17 0	6¼	£4 2 0	13s. 1½d....	£65 14 0
„ 25....	2116	100 6 0	7⅛	4 17 6.....	12 10	64 2 0
Aug. 1....	3189	105 14 0	6⅜	4 1 0	12 7	63 0 0
„ 8....	1391	109 12 0	6	3 17 0	12 9	63 15 0
„ 22....	3329	112 3 0	6¼	4 9 6	13 11	69 10 0

Compared with the last sale, the advance has been in the standard 2*l.* 10s., and in the price per ton of ore about 3s. 2d. Compared with the corresponding sale of last month, the advance has been in the standard 3*l.* 12s., and in the price per ton of ore about 4s. 6d.

At West Chiverton Mine meeting, yesterday, a dividend of 6000*l.* (2*l.* per share) was declared. A fine discovery has been made in the 110, west of Hawke's; this end has been driven 8 fms. west, on the south part of the lode, and at this part the agents commenced to cross-cut north, and intersected the north part of the lode, and so far as cut into (2 ft.) it is worth 50*l.* per fm.; this is independent of the north part, which is worth 98*l.* per fm.

At East Lovell Mine meeting, on Aug. 16, the accounts showed a profit on the four months' working of 628*l.* A dividend of 635*l.* (6s. 8d. per share) was declared, and 25*l.* carried to credit of next account. The south lode never looked so well before. The 40 west has varied in value from 30*l.* to 80*l.* per fathom, and a winze now below the level is worth 60*l.* to 80*l.* per fathom.

At Wheal Kitty (St. Agnes) meeting, on Tuesday (Mr. T. Reece in the chair), the accounts for the three months ending May showed a credit balance of 440*l.* 18s. 1d. The profit on the three months' working was 49*l.* 13s. 10d. Capts. Teague, Polkinhorne, and Davey consider their prospects more cheering than they were three months since.

At Clifford Amalgamated meeting, on Wednesday, the accounts showed a loss on the two months' working of 536*l.* The report was favourable. Capt. John Richards reported that they were raising a fair quantity of copper and tin, and only wanted better prices to make their mines again paying and profitable.

At North Wheal Chiverton quarterly general meeting, on Monday (Mr. George Noakes, F.G.S., in the chair), a very satisfactory report from the agent was read, which will be found, with full details of the meeting, in another column.

At Chiverton Moor meeting, on Wednesday, the accounts for the three months ending June showed a credit balance of 391*l.*

At Wheal Owles meeting, on Aug. 16, the accounts for the three months ending June showed a debit balance of 615*l.* 18s. 2d. Nearly 174 fms. of ground has been removed during the quarter. They have 30 pares stoping on tutwork, and 21 pitches on tribute. They have about 130 tons of tin unsold.

At West Wheal Frances meeting, on Aug. 15, the accounts for the three months ending May show a debit balance of 333*l.* 6s. 9d. The period for which the dues were given up being about to expire, it was resolved that application be made to the Hon. C. M. Fortescue for the favour of a continued remission in consideration of the loss still incurred in properly developing the mine. Capts. C. Thomas and Son, C. Craze, and H. Rabling reported upon the various points of operation.

At the Anglo-Brazilian Gold Company meeting, yesterday (Mr. Henry Haymen in the chair), the report of the directors and balance-sheet were received and adopted. Details in another column.

The Bank of England Returns for the week ending on Wednesday evening show in the ISSUE DEPARTMENT an increase in the "notes issued" of 70,500*l.*, which is represented by a corresponding increase in the "coin and bullion" on the other side of the account. In the BANKING DEPARTMENT there is shown an increase in the "public deposits" of 1,018,476*l.*, and in the "seven day and other bills" of 15,977*l.*, together 1,034,453*l.*; a decrease in the "other deposits" of 479,008*l.*, and in the "rest" of 41077., together 483,115*l.*—551,338*l.*, and deducting from this the 328,810*l.* increase in the "other securities," on the asset side of the account, there remains an increase in the total reserve of 222,528*l.*

The Credit Foncier of England meeting of shareholders was held on Monday, when Mr. A. Grant, M.P., the Chairman, remarked that they had passed through one of the most exhausting and discouraging commercial crisis ever known in England, but he hoped the turning point in the affairs of the undertaking had arrived. As shown by the accounts, the directors had limited their operations to those concerns in which they have been previously interested. Their liabilities were only 130,000*l.*, against assets valued at 1,500,000*l.* Many of the companies which they assisted were now reaching the period of completion, including the City of Milan Improvements Company, the gallery of which will be ready for letting in a few weeks. This, he added, is a noble work, and will afford the proprietors security for their investment, which is second to none founded upon bricks and mortar. After some discussion, the report, which recommended a dividend of 3s. per share, was adopted.

At the Imperial Land Company of Marseilles (Limited) meeting (Mr. Albert Grant, M.P., in the chair), the plan for reconstituting the undertaking, which was circulated amongst the shareholders in May last, was agreed to, with only eight dissentients. The Chairman, in the course of his address, stated that out of creditors representing something like 600,000*l.*, including debenture holders and mortgagees, unconditional assents to the extent of 300,000*l.* had already been received, besides which the board had a clear majority of proprietors in favour of the scheme.

The London Steam Collier and Coal Company (Limited) have declared an interim dividend for the last six months, at the rate of 10 per cent. per annum. The whole of the first issue of 15,000 shares has been taken up, and the directors have decided upon issuing 3000 only of the second issue. The list will then be closed.

At the Leeswood Colliery Company half-yearly meeting, on Monday (Mr. W. N. Lightfoot in the chair), the directors' report (which was published in last week's Journal) was read, and a dividend of 5 per cent. was declared. The Suspense Account had all been paid off, and a small balance carried forward. There was a discussion as to the working of the mines, and a report from Messrs. Dennis and Glenny, mining engineers, of Ruabon, was read to the meeting, and gave great satisfaction. It was ordered to be printed and circulated among the shareholders. A vote of thanks to the Chairman was passed, on the motion of the Lord Mayor of York.

On the Stock Exchange an increased amount of business has been transacted in Mining Shares during the week. The following prices were officially recorded in British Mining Shares:—Great Laxey, 18⅛, 19, 18¼, 19; West Chiverton, 67, 68¼, 68½; Great Wheal Vor, 16⅛, 17; Marke Valley, 4⅞, 5; Prince of Wales, 2½; East Caradon, 5⅛; North Wheal Crofty, 3⅜; Providence, 26; Wheal Seton, 106, 107½; Wheal Buller, 2¼. In Colonial Mining Shares the prices were:—Port Phillip, 1, 1 1-16th, 1⅛; Scottish Australian, 1; Vancouver, 2; Cape Copper, 6⅞, 6⅞. In Foreign Mining Shares the prices were:—Anglo-Brazilian, 9-16ths, ⅝; Chontales, 4 11-16ths, 4 13-16ths, 5 3-16ths, 5⅛; Don Pedro, 1⅛, 1 5-16ths, 1 9-16ths, 1⅛, 1⅜ prem.; St. John del Rey, 58⅜, 59, 60½, 60, 61¼; Pestarena, 2⅜; Rossa Grande, 5-16ths.

THE COPPER TRADE.—Messrs. Vivian, Younger, and Bond (Aug. 23) write—The firmness evinced by holders, especially of Chili produce in Liverpool, has resulted in a further improvement in prices of that description, bringing the figure for spot bars, good brands, up to 70*l.*, whilst 14s. 6d. has been refused for a cargo of regulus to arrive. The actual business done has been only moderate—120 tons spot bars, 69*l.* 10s. to 70*l.*; 120 tons bars to arrive, 70*l.* 10s. to 70*l.* 15s.; 20 tons Urmenata ingots, 78*l.*, cash; 600 tons of ore (half Canadian) sold at 14s. 3d. per unit, and 160 tons of argentiferous regulus at 14s. 2d. per unit. At the present moment there are no sellers of bars to arrive at 71*l.* English copper has participated in the improvement, and a fair business has been done in tough at 78*l.* and 79*l.* Quotations of Australian sorts remain unchanged. Holders of all kinds are firm.

VENTILATED FUEL.—In the manufacture of the ventilated fuel, to which reference was made in last week's Journal, Mr. Bird finds that just so much foreign matter should be added as will hold the particles of fuel in firm cohesion, and adds but a minimum of moisture, or other hindrances, to the equal combustion of all ingredients. The inventors remark that although the invention referred to on Saturday was abandoned, a re-application, including the invention described in the first provisional specification, with other improvements, was made on March 29, and that the invention described in the first provisional specification remained a secret until July 5, consequently the validity of March 29 patent is in no way affected. For combining the particles of coal dust, the patentees specify a glutinous material which soon dries into hardness—after the example of the well-known shoemaker's paste—and they add substances which keep the coal or coke in continuous combustion. There are but some 12 lbs. of foreign matter in all used to the ton of coal, and, consequently, Mr. Bird's ventilated bricks are, to all intents and purposes, the very fuel itself which it is sought to utilise.

THE MID-WALES LEAD MINING COMPANY.—In another column will be found the details in connection with a visit made by the directors of this company and their friends to the property in Mid-Wales. The sett comprises an area of more than 800 acres, in which several productive veins have been proved to exist. A considerable amount of capital has been expended upon it by the shareholders in Brynpostig, the advantage of which will be gained by the Mid-Wales Company. So satisfied were the directors with the more than corroborative information they obtained upon the spot as to the value of their property, that they instructed Capt. Kitto (manager) to proceed with all possible dispatch to erect the necessary machinery, and to continue the development of the mine upon a scale which its merits warrant. In addition to the evidence previously possessed by the directors as to the resources of their mine, a perusal of the details will show that many confirmatory facts were adduced by Mr. Job Taylor (of Dudley) and others, who have been for many years interested in this and the adjoining mine—Brynpostig. Seldom has a mining enterprise been inaugurated under such encouraging auspices.

THE TAMAR VALLEY SILVER-LEAD MINE.—This silver-lead district seems likely to again become famous. The cutting of a splendid lode at the above mine has excited considerable interest in the neighbourhood; all who have seen the specimens at the London office pronounce them excellent, and certainly, from appearances, the mines seems destined to prove a great prize.

LEAD ORES.

Date.	Mines.	Tons.	Amount.	Purchasers.
Aug. 16—	Great Laxey	100	£23 7 0	Burry Port Co.
—	Dylife	97	12 6 6	Walker, Parker, & Co.
20—	Maes-y-safn	50	12 8 6	ditto
—	ditto	50	12 10 0	Panther Lead Co.
—	ditto	40	12 8 6	Walker, Parker, & Co.
—	ditto	60	12 12 6	Panther Lead Co.
21—	Herodsfoot	60	27 10 6	Burry Port Co.
22—	Wheal Mary Ann	54	24 7 6	Treffry's Trustees.
—	ditto	40	15 7 6	ditto

BLACK TIN.

Date.	Mines.	Ts.	c.	q.	lbs.	Price p. ton.	Amount.	Purchasers.
Aug. 17—	Penhalls.....	12	6	3	24 ..	—	..£657 10 10	—
20—	Wh. Kitty (St. Ag.)	18	1	3	26 ..	—	.. 959 5 0	—

SILVER and COPPER ORES and REGULUS, sampled August 6 and 7, and sold at Liverpool, August 21, 1867, by JAMES LEWIS.

Lot.		Tons.	Price.	Purchaser.
1—	Argentiferous regulus, ex Ianthe.....	27 ..	£46 7 6 ..	Vivian and Sons.
2—	ditto ditto	45 ..	36 9 6 ..	
3—	ditto ditto	45 ..	36 2 6 ..	Sims, Willyams,
4—	ditto ditto	43 ..	35 14 0 ..	and Co.
5—	Silver ore, ex Ianthe.....	8 ..	63 14 6 ..	
6—	West Canada ore, ex Nunquam Dormio	70 ..	16 12 6 ..	
7—	ditto ditto	70 ..	16 8 6 ..	Williams,
8—	ditto ditto	62 ..	16 11 6 ..	Foster, and Co.
9—	ditto ditto	62 ..	16 14 0 ..	
10—	ditto ditto	35 ..	11 3 0 ..	St. Helen's
11—	ditto ditto	35 ..	13 12 6 ..	Copper Co.
12—	ditto ditto	40 ..	14 3 0 ..	Williams, Foster, and Co.

COPPER ORES.

Sampled Aug. 7, and sold at the Royal Hotel, Truro, Aug. 22.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols..	131	£4 18 6	Marke Valley	39	£2 8 6
ditto	128	5 14 0	Brookwood	65	3 15 6
ditto	124	5 8 6	ditto	60	2 14 6
ditto	118	5 6 6	ditto	59	4 0 6
ditto	115	4 13 0	ditto	50	3 10 6
ditto	113	4 16 6	ditto	36	9 16 6
ditto	111	5 3 6	East Caradon.....	90	4 16 0
ditto	110	5 3 6	ditto	83	5 10 6
ditto	106	5 10 6	ditto	81	4 2 6
ditto	103	1 19 6	Okel Tor	60	1 8 0
ditto	101	5 8 6	ditto	52	3 7 6
ditto	76	3 15 0	ditto	47	1 11 6
ditto	70	2 15 6	ditto	31	6 7 0
ditto	68	3 19 6	Gawton.....	58	2 19 6
ditto	60	3 6 6	ditto	38	2 13 6
ditto	48	2 18 6	ditto	24	1 19 6
ditto	46	1 12 6	ditto	18	4 9 6
ditto	32	2 11 0	Prince of Wales.....	48	7 4 0
ditto	30	12 16 0	ditto	46	7 13 0
ditto	24	6 4 6	ditto	38	5 15 0
Marke Valley	86	2 17 6	Wheal Friendship ..	62	5 1 6
ditto	80	3 10 0	ditto	18	10 15 6
ditto	75	5 13 6	Bedford United.....	40	3 9 0
ditto	65	4 13 6	ditto	36	3 6 6
ditto	64	5 8 0	Fursdon	17	6 2 6
ditto	49	1 9 0			

TOTAL PRODUCE.

Devon Great Con.	1714	£8015 13 6	Gawton.....	138	£ 402 3 0
Marke Valley....	458	1767 19 6	Prince of Wales..	132	916 0 0
Brookwood	270	1176 6 0	Wheal Friendship	80	508 12 0
East Caradon....	254	1224 14 0	Bedford United..	76	257 14 0
Okel Tor	190	530 7 6	Fursdon	17	104 2 6

Average Standard ..... £112 3 0 | Average Produce 6⅛
Average Price per ton £4 9 6
Quantity of Ore ..... 3329 tons | Quantity of Fine Copper, 214 tons 9 cwts.
Amount of Money..... £14,903 12 0

LAST SALE.—Average Standard..... £109 12 0.—Average Produce.....6
Standard of corresponding sale last month, £109 17 0.—Produce, 6¼.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	598½.....	£1551 9 0
Freeman and Co.	139½.....	759 18 3
Grenfell and Sons.....	172	958 0 9
Sims, Willyams, and Co.	346	1917 1 3
Williams, Foster, and Co.....	594	2743 17 0
Mason and Elkington.....	610½.....	3054 3 0
F. Bankart	76	285 0 0
Copper Miners' Company	316	1541 3 6
Charles Lambert	260½.....	1166 4 3
Swetland, Tuttle, and Co.	163	793 1 8
Hadland and Co.	29	86 5 6
Landore Copper Company	24	47 8 0
Total	3329	£14,903 12 0

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday next.—Mines and Parcels.—South Caradon 444—Clifford 366—Great North Downs 348—West Damsel 218—Phœnix 179—Fowey Consols 120—Grambler 11.—Total, 1686 tons.

Copper ores for sale at Tyack's Hotel, Camborne, on Thursday week.—Mines and Parcels.—Clifford Amalgamated 800—West Seton 560—South Frances 302—Wheal Basset 158—East Pool 151—Carn Camborne 120—South Condurrow 70—Wheal Polmear 60—North Roskear 55—Nangiles 52—North Grambler 41—Emily Henrietta 37—North Pool 18—South Basset 8—Michell's Ore 1.—Total, 2454 tons.

PRINCE OF WALES.—At the meeting it was stated that the water was short for drawing purposes, but the agent hoped a few showers would put it right. On Thursday, we received information that from the continued short supply it was impossible to draw the stuff from the mine and crush it fast enough to make up the next sampling to the usual quantity; and, as this might be made use of to frighten holders out of their shares, the secretary at once sent a circular to the shareholders, informing them of the fact, and the committee took steps to remedy the defect in future. All the stuff from the mine is drawn to surface and crushed by water-power, to aid which the water raised from the mine by the steam-engine is pumped into a reservoir; but it is a somewhat singular circumstance that though in some places a vast amount of rain has fallen this year, in others there has been scarcely any. The sampling would not be due for a fortnight, and there are already on the mine 60 tons of ores raised, and 50 tons broken underground, and the water may not admit of crushing more than the 60 tons. The decreased sampling, however, will be made up, the agent says, before the end of the quarter, so that the three months' ores will give the usual amount of profit.

WELSH MINES.—Minera *alone* paid 29,700*l.* in dividends last year.

CHONTALES.—In our remarks of last week two rather important clerical errors appeared. We said 5000 tons of stuff *a month*, yielding 1½ oz. of gold to the ton; and 3*l.* 10s. per ounce would *give* 26,250*l.* *a month, or a profit* of over 20,000*l.* *a month*. But by mistake it was printed "26,250*l.* a-year, or a profit of over 2000*l.* a month," a result which must have appeared highly absurd, after the remarks that preceded and followed it.

Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt: it then forms an accumulating useful work of reference.

The MINING JOURNAL may be had every Sunday morning of M. L. Nicoud Bellenger, rue Rivoli, 212, Paris. Price 65 centimes. Mr. Nicoud Bellenger also supplies all English and American books and newspapers to order.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, AUGUST 24, 1867.

TUNNELLING BY MACHINERY.

The steam tunnelling machine invented by Mr. HAUPT being one of the prominent exhibits at the Cornwall Polytechnic Society's meeting this week, a brief account of it may not be uninteresting to the readers of the *Mining Journal*. Mr. HAUPT claims thirty years' experience as an engineer, whilst the fact that he was for some years connected with the boring of the great Hoosac Tunnel, which is second only to that of Mont Cenis, has necessarily given him great facilities for practically studying the subject of boring machinery in all its details. In America his abilities have been fully recognised; in the middle of 1861 the Government placed him in charge of the Bureau of Military Railroads, with the title of Chief of Construction and Transportation, with the rank of colonel, and he was raised to that of brigadier-general for the important services he rendered during the battle of Bull's Run. The position of the inventor being acknowledged sufficient to entitle the drill to the careful consideration and thorough investigation of engineers and miners in every country, he hopes that the extreme simplicity and efficiency of the apparatus, its low cost, the direct application of the power, and the rapid and economic progress, as compared with any other mode of conducting such operations, will revolutionise mining and tunnelling throughout the world, and render practicable gigantic operations in engineering which without such means would be classed as impossible.

The drill of Mr. SOMMELIER, in use at the Mont Cenis Tunnel, is regarded by Mr. HAUPT as the nearest approximation to success heretofore, and he takes special care to point out wherein his own is superior. The length of the Mont Cenis drill is 106½ in.; its weight between 600 and 700 lbs., too great to be handled except by machinery; its length permits holes to be drilled only in directions nearly parallel. Its parts are numerous, its liability to derangement great. The cost of repairs is so considerable that the expense of tunnelling exceed the cost by hand labour. The length of Mr. HAUPT'S drill is only 32 inches, considerably less than one-third that of the Mont Cenis drill; it can be turned in any direction whatever; two machines on the same stand can at the same time drill holes in directions nearly at right angles to each other. It weighs about 125 lbs., and one man can lift and carry it. It is not liable to derangement. The wearing parts are inexpensive, and easily renewed; every part is accessible for oiling. Any one drill can be removed, and another inserted without stopping any other machine. The drilling tools are inserted at the back, and not at the forward end; a minute is sufficient time to take out one and insert another. The cost of tunnelling is expected to be so much less than the cost by hand labour, that a company has recently been organised in the United States to take contracts for tunneling at the cost of hand labour, and they expect to make very large dividends from the profits.

The reciprocating movement in nearly all drilling engines is produced by the to and fro motion of the piston. The points to be determined in connection with this movement are the diameter and stroke of the cylinder and the form of valve. If the drilling tool is connected with the piston, and the blow upon the rock is given by the direct action of air or steam, the pressure per square inch being assumed, the diameter of cylinder necessary to secure any given total pressure is readily determined; a diameter of cylinder of 4¼ inches, with a piston-rod of 2¼ inches, will leave an annular ring of 9 4-10ths square inches for the power to act upon; a pressure of 60 lbs. per square inch will give a total force upon the piston of 560 lbs., and this is found to be sufficient to strike a blow as hard as the steel used in the drill points can stand. The force of the blow is almost entirely independent of the length of stroke, and it, therefore, follows that the stroke should be as short as will fulfil the other essential conditions of moving the valve, rotating, and feeding. For these purposes 4 inches is found to be a convenient length, and the capacity of the cylinder is determined to be 4½ in. diameter and 4 in. stroke, allowing a breadth of piston of 2½ inches, and a small space for clearance at the ends, the inside length of the cylinder is about 8 inches. Drills constructed with larger cylinders involve a very great and unnecessary waste of power.

For drilling-engines, Mr. HAUPT considers the ordinary form of slide-valve very objectionable. Whatever may be the mode of connection between the piston-rod and valve, the opening into the cylinder must be by a gradual sliding movement, which opens the port for the admission of air or steam into the forward end of the cylinder before the stroke is fully completed, and the blow given upon the rock. It is obvious, therefore, that the steam or air is entering and retarding the velocity of the piston at the very point where it should be greatest. If, under these circumstances, a blow is given of sufficient force to be effective, it must be secured by a wasteful expenditure of power to compensate for the retardation caused by the slide-valve. The valve designed by Mr. HAUPT consists of a tube sliding within a cylindrical steam-chest, and surrounded by rings which fit tightly, and form the rubbing surfaces of the valve. A valve-rod passing through a gland at the forward end of the steam-chest, and connected with the valve either in a rigid manner or by the interposition of springs, to relieve the blow upon the end of the steam-chest. A stop on the valve-rod so adjusted that when the arm or the piston-rod is at the end of the back stroke, it will place the valve in proper position, with the spiral spring compressed around the valve-rod, and the valve fastened by the trigger, which is pressed down by the spring. The trigger has upon it two adjustable stops, which can be placed in such position as to shift the valve at the proper part of the stroke. When the arm commences to move forward it has no effect upon the valve-rod, which remains fastened by the first stop, but when the arm reaches the second stop the trigger is raised, the spring relieved, and the valve-rod instantly projected forward by the recoil of the spring. As the stop is adjustable, the length of stroke may be regulated at pleasure, but the expenditure of steam will not be reduced by shortening stroke, unless a portion of the spaces at the ends of the cylinder be filled with solid material, or the piston lengthened.

The rotation of the drill is effected by a ratchet and two pawls, one of which is on the stud to rotate the drill, and the other in the arm to prevent slipping. Mr. HAUPT has employed what he designates a momentum feed, but he has since designed a screw feed, which he considers will be vastly superior. He allows the forward motion of the piston, instead of rotating the nut directly, to compress a spring, which on the back stroke produces the rotation by its recoil, and thus gives the desired movement at a time when there is no strain whatever upon the parts. Mr. HAUPT also proposes special arrangements for erecting and removing the drills, ventilation, and so on, but these are, of course, subjects which may remain for consideration until the efficiency of the drill has been proved; but the subjoined laws, which have been verified at the Franklin Tunnel, and which may be considered at least approximately established, relative to the motion of air in tunnels, will be generally interesting, from their applicability to the ventilation of mines. These laws are those which govern the motion of air in pipes when produced by creating a partial vacuum at one end, and allowing the atmosphere to act freely at the other.—1. The friction in the pipe being left out of consideration, the power requisite to draw a given quantity of air through a pipe of given length will be inversely as the fourth power of the diameter, or inversely as the square of the area.—2. The quantity of air being constant, the power will be as the square of the velocity.—3. The velocity and power being constant, the quantity will be directly as the area.—4. Power and quantity remaining constant, area must increase according to some function of the distance. The first three of these laws, which are independent of friction, are modified by those which follow.—5. The velocity, area, and quantity being constant, the frictional resistance will be directly as the length of pipe, and the increment of power required to overcome it will be in the same proportion.—6. The experiments at the Mount Cenis Tunnel establish a sixth law, which is this—the loss of tension or resistance is inversely as the diameter. Now, as the number of particles in contact with the surface, as compared with the whole volume, is reduced in proportion as the circumference is increased, this explains the cause of a reduced resistance with an increased frictional surface. It would follow that, quantity and velocity remaining constant, the resistance should be directly as the perimeter. The economy of Mr. HAUPT'S machinery is, it appears, quite as much a recommendation as its simplicity and efficiency, and as a very general feeling exists that the invention is well worthy of trial, it may fairly be anticipated that ere long the real value of the invention will have been thoroughly ascertained.

THE ROYAL INSTITUTION LECTURES ON "SOUND."

There is a growing desire in this country, as well as on the Continent, for scientific study, as the most certain means of advancing practical progress. We feel, therefore, highly gratified that Prof. TYNDALL, F.R.S., has published in a concise form the eight lectures delivered by him on "Sound," which proved so attractive to his numerous auditors at the Royal Institution of Great Britain.* The study of acoustics, or the doctrine of sound, in connection with hearing, must be interesting to all intelligent persons, and the subject is treated experimentally throughout this volume, so that the reader, by means of sketches and diagrams, illustrating every experiment, is enabled to realise it as an actual operation. Science ought to teach us to study the invisible as well as the visible in nature, and as the air we breathe is the great medium for the production and progress of sound, no subject is more interesting or important than the theory of motion by which it is conveyed in the first instance to the human ear, and thence to the brain—the seat of all sensation. It is the motion imparted by the sunbeam to the optic nerve which, when it reaches the brain, awakens the consciousness of light, and it is similar motion imparted to the auditory nerve which in the brain is translated into sound.

Sound travels in waves, and the velocity of its transmission is determined by two conditions—the elasticity and the density of the medium through which it passes. The elasticity of air is measured by the pressure which it sustains in equilibrium; this pressure at the sea level is equal to that of a stratum of mercury about 30 in. high, while on the summit of Mont Blanc the barometric column is not more than half that height, consequently the elasticity of the air at that elevation is not much more than half what it is at the level of the sea. If we could increase the elasticity of the air without at the same time augmenting its density, or if, on the other hand, we could diminish the density, allowing the elasticity to remain stationary, we should augment the velocity of sound, which travels more rapidly through heated than through cold air. The velocity increases about 2 feet per second for every degree centigrade added to the temperature, hence while the distance of a cannon fired, or of a flash of lightning, of which we have lately had such experience, may be determined by observing and calculating the interval that elapses between seeing the flash and hearing the sound; if the velocity of the sound in air be given, the temperature may be also readily ascertained. The velocity of sound also varies in different gases, while in atmospheric air at the freezing point it travels 1089 feet per second; in hydrogen it moves 4164 ft.; and in carbonic acid gas, which is so much heavier, it is reduced to 858 ft. per second. Its velocity through metals also varies materially, while in lead it is only 4030 feet per second; in copper it rises to 11,666 feet, and in iron to 16,822 feet per second. Musical sounds are produced by sonorous vibrations in the air, which follow each other at regular intervals with a sufficient rapidity of succession, and the numerous and highly interesting experiments contained in this instructive volume, prove that while the tuning-fork and sounding-board are the most popular they are also the most efficient agents in the illustration of harmonious cadences and intonations.

The singular but beautifully perfect mechanism of the human ear, the mysterious phenomena of hearing, and the theory by which the vibrations of the air are believed to be in the first instance conveyed to the auditory nerve, and thence to the brain, deduced from the highest authorities, are explained by the highly scientific lecturer with great precision, and in a manner indicative of enquiry and research. The volume is not merely confined to those practical purposes, it will be seen to embrace all the modern discoveries of Prof. WHEATSTONE, of CHLADNI, and of other foreign *savans*, on the most refined and occult branches of acoustic science, now, we believe, for the first time presented in an attractive form to the British public. Amongst these topics will be found the theory of sounding or singing flames, of the harmonic notes produced by the action of flame, the constitution of, and action of sound on liquid veins, the theory of beats, the action of beats on flame, and of sensitive flames in tubes, the harmonic sounds of flame, and the extinction of sound by sound. The most extraordinary novelties, with which but few are acquainted, will be found in those pages which treat on the Diatonic Scale, the doctrine and composition of Vibrations, primary as well as sympathetic, as affecting pendulums, together with the optical illustrations and scientific representation of musical intervals. The experimental illustrations by which the general student is made acquainted with the novel and extraordinary results produced by the varied forms in which the agency of sound is introduced may, in all probability, be found available for other and more general purposes of practical science. We regret that our limits preclude us from entering more fully into the numerous and attractive subjects which this interesting volume unfolds, and we strongly recommend its careful perusal to all those who are desirous of becoming acquainted with Acoustics, one of the most remarkable and mysterious branches of scientific study.

* Longmans, Green, and Co.: London, 1867.

WATERPROOFING CARTRIDGES.—According to the invention of Mr. E. C. Prentice, of Stowmarket, the sheet of India-rubber (or composition with similar qualities) is distended by the pressure of air into a bubble-like form, and whilst it is so distended the cartridge is placed within the bubble through the air-pipe. The pressure is then taken off, and the strained material is allowed to close around the article, and is then securely fastened.

ATOMECHANICS.—A novel hypothesis connected with the science of chemistry is now being taught by Prof. Gustavus Heinrichs, of the Iowa State University, U.S. He assumes that the atoms of the different chemical elements only differ with regard to *quantity*—the number and relative position of the atoms of some one primary matter—just as the planets only differ according to the quantity of ponderable matter they contain, and its distribution around their axes. Since everything would thus be composed of this one primary matter, he calls it "pantogen," and its atoms "panatoms." Prof. Heinrichs demonstates that the pantogen hypothesis explains the numerical relation of the atomic weights, and gives a simple, comprehensive, because natural, classification of the elements; and that the chemical, physical, and morphological properties of the elements, and their combinations, may be calculated just as the orbit of a planet is calculated. In answer to the doubt that may exist in the minds of many as to the existence of "pantogen," and to the belief that the chemical elements, as at present recognised, are indecomposable. Prof. Heinrichs very justly asks—"Can you mention one single property which is not in some degree common to all elements? Is not, therefore, the difference between these elements simply quantitative? Are not, therefore, the elements simply quantitative modifications of one substance of Pantogen?" The theory has at least the advantages of plausibility, and his development of it certainly

opens a large field for useful research, owing to the enormous benefit which would result from the application of the theory, should it prove to be a sound one.

LONDON COAL DUTIES.—The gross amount of coal duty collected for the Metropolitan Board of Works in 1861 was 178,579*l.*; in 1862, 180,245*l.*; in 1863, 191,069*l.*; in 1864, 197,310*l.*; in 1865, 209,370*l.*; and in 1866, 211,644*l.* After allowing for drawbacks and expenses, the nett proceeds available for the purposes of the Metropolitan Board of Works were—in 1861, 159,084*l.*; in 1862, 154,067*l.*; in 1863, 166,144*l.*; in 1864, 171,719*l.*; in 1865, 186,311*l.*; and in 1866, 187,102*l.* A smaller coal duty is also collected by the Corporation of London. This duty produced in 1861, 85,033*l.*; in 1862, 80,109*l.*; in 1863, 84,920*l.*; in 1864, 87,693*l.*; in 1865, 93,053*l.*; and in 1866, 94,064*l.* After allowing for drawbacks and expenses, the nett proceeds available for the purposes of the Corporation were—in 1861, 75,831*l.*; in 1862, 63,876*l.*; in 1863, 73,842*l.*; in 1864, 76,320*l.*; in 1865, 82,805*l.*; and in 1866, 83,157*l.* The quantity of coal coming within the London coal duty radius in 1861 was 5,232,082 tons; in 1862, 4,973,823 tons; in 1863, 5,127,106 tons; in 1864, 5,476,426 tons; in 1865, 5,909,940 tons; and in 1866, 6,020,182 tons.

MINING, METALS, AND MINERALS—PATENT MATTERS,

BY MICHAEL HENRY,

Patent Agent and Adviser, M. Soc. Arts, Assoc. Soc. Eng.

Mr. DŒRING constructs boring engines in which a distribution of steam, air, or other fluid is required to work different parts of the mechanism at different parts of the stroke of the engine, with one or more cylinders for distributing the steam or other fluid to one or more other cylinders: the piston of the first-named cylinder is worked by a cross-head, or similar appliance, from the piston-rod of the engine. He also constructs engines for boring and working rock and other material with one or more distributing cylinders, to distribute compressed air or other fluid for working the valve of the ordinary cylinder, and the working the pistons of two other cylinders (or either of them), for producing respectively the rotary motion of the ordinary piston and tool, and the advance motion of the engine. He further specifies constructing stands for boring engines with three or more legs, connected to each other like the legs of a tripod, one of such legs being composed of the two side supporting shafts of the engine, and the other legs, or some of them, being telescopic.

Dr. WAY has taken out a patent for some improvements which he states to be partly of his own invention, and partly a communication to him from Capt. Cornwall Henwood. In his specification he states that in the island of Sombrero and elsewhere minerals are found containing phosphate of lime in considerable quantity, but frequently it is mixed with so large a proportion of carbonate of lime as to have little or no commercial value: to bring it into a state suitable for use as manure, more acid would be required than it is commercially practicable to employ. Now, the object of this invention is to remove the carbonate of lime from the phosphate mineral by inexpensive means. For this purpose he burns the mineral in a similar manner to that in which limestone is commonly burnt, and so the carbonate of lime is converted into quicklime. The burnt rock is then slaked with water, and the slaked lime separated from the phosphate by sifting or winnowing with a current of air, or by washing with water, or by these processes combined, according to the pureness of division in which the phosphatic material is found after slaking, and the consequently greater or less difficulty experienced in effecting its separation from the lime. He claims as the improved mode calcining the mineral, slaking the lime, and removing the slaked lime by washing or winnowing.

The recent applications for patents include—EVERIST, Kidderminster, gas.—STURTEVANT, West Roxbury, blowers for furnaces.—JONES, HOWSON, and GJERS, Middlesbro', puddling and other furnaces for iron.—BETTS, City-road, metallic capsules (two applications).—ORMEROD, Atherton, safety apparatus for mine winding-machinery.—LAKE (communication from Hedenberg, Chicago), metal ties or bands for bales.

PRUSSIAN MINING AND IRONWORKS COMPANY.

The following, being a translation of a notice which appeared in the *Berliner Borsen Zeitung*, of the 16th inst., with a few additional particulars obtained on good authority, will be interesting to the shareholders in the above-named company, many of whom reside in England and Ireland:—

Dortmund, Aug. 14.—All parties concerned in mining operations in our district have for the last 15 or 16 months followed with much interest the formation of the above-named company, and the progress of its operations. The projected undertaking was, without doubt, a bold one, comprising as it did the taking up of three great works which had already been the apparent cause of shipwreck to as many joint-stock companies—the colliery "Hansa," near Huckarde; the colliery "Zollern," near Kirchlinde; and the ironwork "Vulkan," at Duisburg, and the completion and exploiting of these works in conjunction with an entirely new colliery, "Erin," near Castrop. The two collieries, Hansa and Zollern, had become notorious for the unusual difficulties encountered in the sinking of the shafts, owing to the enormous quantity of water met with in the marl formation; and so great and almost insurmountable were those difficulties supposed to be, that the works had been allowed to lie still for about seven years, since the failure of the first companies, and no purchaser could be found for the properties upon any terms. The projectors of the above company acquired these two collieries, as well as the Vulkan Ironworks, with its iron mines, all upon very low terms—indeed, little more than *one-fourth* of their original cost. The undertaking was, therefore, one which, if *successful at all*, might be expected to be *a great success*, owing to the comparatively very small capital upon which profits would have to be divided; but the difficulties to be overcome being so well known, it required an immense amount of confidence in the management of the concern to induce capitalists to come forward with the necessary funds. It appears that such a confidence did exist, and was acted upon by the shareholders, who have promptly met the demands upon them, and that at a time, too, when any new undertaking which was not founded on the most solid basis must have entirely failed. The results now to be reported prove how entirely that confidence was justified.

The company was constituted at a general meeting held at Dusseldorf, on May 7, 1866. In the same month the industrial and mercantile world was thrown into confusion by the apprehensions of a great war. The war itself followed, with all its results, so glorious for the country, and, without doubt, so advantageous for the future and permanent prospects of all industrial undertakings, but so trying and calamitous for the momentary operations of all trade and industry, and from the effects of which we have by no means yet recovered. Nevertheless, the company proceeded steadily and vigorously with its important works, and its exertions have been crowned with great success. Since the last few days the flags waving above the new shaft at the Hansa Colliery have intimated the final overcoming of all difficulties at that winning. The shaft has been successfully sunk to the depth of 43 lachters (a Prussian lachter is about 6 ft. 10¼ in. English measure), through the great feeder of water, into the solid and dry stratum below them, and all the water has been completely shut out by the cast-iron tubbing, upon the English system, which was first introduced into this country with such well-known advantages at the collieries Hibernia and Shamrock, and has been since then adopted successfully in several other works. The further sinking of the Hansa shaft to the coal measures, through the green and white marl (in which it has been ascertained by boring that no important feeders of water are to be met with) presents no difficulties whatever, and there is, therefore, every reason to expect that this fine work, which has so long lain dead, impressing all who saw it with the painful feeling of looking at a great commercial as well as a technical failure, shall be producing coal in the early part of next year.

At Erin Colliery, near Castrop, where the work is an entirely new one, commenced by this company last year, the progress of the shaft sinking has been very rapid and successful. There are here two shafts, each of 14 ft. diameter, sunk very close together (48 ft. from centre to centre), with a view to provide amply for all the requirements of ventilation, deep pumping, and coal drawing upon a large scale, the colliery being looked upon as one of great importance, being in the direct continuation of the well-known Gelsenkirchen and Herne coal basin, and there being a depth of about 100 lachters of marl over the coal measures, so that the first main working level will be at a depth of about 150 lachters. The shafts were sunk for the first 8 or 10 lachters through running sand and soft marl, by means of sink-walls, and they have both been completed through the water-bearing portion of the marl with cast-iron tubbing to the depth of about 25 lachters, at which depth it was found practicable to shut off all the marl water. The further sinking of the shafts, through a stratification which has been proved by boring to be free of water, is carried on without any pumping, and the shafts are finished with a walling of formed bricks, of a fire-proof quality, made at the brickworks belonging to the Hibernia Colliery. No. 1 shaft is now nearly 60 lachters, and No. 2 about 32 lachters deep. In the month of July about 16½ *lachters* of shaft were sunk and walled complete, and as the sinking of No. 1 shaft is now being proceeded with at a similarly rapid rate, it is expected that the coal measures will be reached before the end of the present year.

The Zollern Colliery had not been definitively acquired at the time the company was constituted, and the funds for its purchase and exploitation were not provided for in the first issue of shares, in amount of 120,000*l.* According to the financial plan of the company, and the provisions contained in its statutes, a second issue of 60,000*l.* was to take place for that purpose, as soon as the first series of shares should be fully paid up. This second issue of shares is now about to be made, as announced by the council of supervision, in the advertisement of July 20 last; and the company having, in the meantime, concluded the purchase, and taken possession of the Zollern property, all preparatory arrangements were made for proceeding with the shaft-sinking; and now that the difficulties at Hansa have been overcome, no time has been lost in commencing operations at Zollern. The difficulties here are considered to be much less formidable than those at Hansa, the depth from which the water has to be pumped being little more than half so great, and the engine-power being amply sufficient. It is, therefore, confidently expected that one of the present shafts may be completed, so as to shut off the water in a comparatively short time; and as the additional depth to be sunk to the coal formation is only about 25 lachters, it is not improbable that the Zollern Colliery may be ready for coal working nearly as soon as its sister collieries, Hansa and Erin. These three collieries comprise a connected complex of 30 concessions, or about 7500 English acres. The quantity of workable coal may be looked upon as inexhaustible for many generations to come, even for five or six great collieries; while the three at present in progress, being each on the most extensive scale known in this country, with two shafts of 14 ft. diameter, and ample steam and engine-power, will be capable of producing such a quantity of coal as, even under unfavourable circumstances, should secure a considerable profit upon a capital so moderate as that of this company.

The Vulkan Ironworks at Duisburg have been in operation with one blast-furnace since the month of October, 1865, with the exception of four months during the war period of last year. A second furnace is ready to be put in blast in a month or two, and the foundry has been kept in full operation, furnishing, amongst other castings, those required for the cast-iron tubbings of the new shafts at the coal winnings belonging to the company, as well as for other shafts belonging to the Royal Saltworks at Stassfurth, the Colliery Von der Heydt at Berne, Hibernia at Gelsenkirchen, &c. On the whole, the shareholders of the company have every reason to congratulate themselves upon the progress made in the first year of its operations.

REPORT FROM NORTHUMBERLAND AND DURHAM.

AUG. 22.—The Coal and Coke Trades have improved a little, and will, no doubt, continue to improve as the season advances. The shipping at the north-eastern ports has also been better employed of late, and altogether trade generally has a more hopeful appearance. The Iron Trade prospects are also considered to be a little better, but actual improvement has hardly reached here yet, indeed the only improvement noticeable is in manufactured iron, machines, &c. The stocks of pig-iron are still on the increase, especially at Middlesbro'.

I last week briefly noticed the very interesting ceremony which took place at Dinnington on the 14th inst.—the cutting of the first sod as the commencement of a new shaft to be sunk in connection with the Seaton Burn Colliery. The ceremony was more particularly interesting from the fact that it was the first public act of Mrs. C. M. Palmer, who cut the sod. The new shaft is to be a large one, from which a large quantity of coal is expected to be got, and a number of houses are to be built of the most comfortable kind for the workmen on the spot. The Seaton Burn Colliery has been worked a number of years, mainly for steam coal, a large quantity of which, of the best quality, has been produced here. The coal seams dip in the direction of Dinnington, and hence the new shaft will prove of the greatest advantage to the works, as the coal and also water will be readily got to it, and powerful engines will be erected for the purpose of drawing them.

After the ceremony of cutting the first sod was completed, the people assembled (including a large number of men employed at the works) were addressed by Mr. C. Palmer. He said that the shaft is intended to put out from 800 to 1000 tons of coal per day, and explained the general arrangements of the works. He then adverted to the erection of houses for the men, which, he said, will be superior to any yet erected in the mining districts. This is certainly a hopeful feature; where new houses are now erected they are of a much superior kind to those formerly erected. He also said that after a man has fulfilled his duty by working a fair day's work, he is entitled to have his home as comfortable as it can be made. And as he saw a large number of the fair sex there, they would, perhaps, allow him to express his opinion upon their duty. A grave responsibility attaches to them in making their homes happy and comfortable, by keeping them clean and orderly. Success was afterwards drank to the Dinnington Colliery—that is, the Augusta Pit—amid loud cheers, and the men adjourned to the public-houses in the village, where they also drank success to this important undertaking.

It will be apparent that the Coal Trade here continues to show evident signs of renewed activity. The number of new works projected or commenced sufficiently attest the general healthy state of the trade, and also the determination of the owners that when a full demand comes the means of supplying that demand shall not be wanting.

A new colliery is projected near the celebrated Monkwearmouth Colliery. Fifteen acres of land have been purchased near Roker (that is, to the north-east of the present extensive works), and this is to be the site of the new works, the object being to work mainly the coal under the docks and the sea. A large quantity of coal is expected to be got here under the North Sea, of the best quality, and as the depth is great no apprehension is felt as to any danger from water. A new colliery has also been projected near Ryhope some time, but the works have not yet been commenced; but on the completion of the second shaft at Ryhope there is no doubt that this concern will also go forward.

A supper was given to the officials of the Plashett's Colliery on Saturday, Aug. 10, at the Plashett's Inn. In the absence of Mr. Wardle, the viewer of the colliery, the chair was taken by Mr. Geo. Hall, overman, the vice-chairs being filled by Mr. Wm. Black and Mr. G. Hepple. A most harmonious and agreeable meeting was held, and the usual toasts were proposed and heartly responded to. This concern is situated on the North Tyne, on what is known as the Plashett's Coal Field, supposed to be a continuation of the Northumberland and Durham Coal Field; but it is yet comparatively unknown, as it has not as yet been much explored.

The agents and workmen of Messrs. John Abbot and Co. (Limited), Park Works, Gateshead, have presented Mr. William Dinning, on his leaving the works to take the management of the Percy Ironworks, Newcastle-on-Tyne, with a splendid gold watch and appendages. The presentation was made by Mr. Robert Gibson.

The workmen employed at the North Bitchburn and Roughlee Collieries, near Bishop Auckland, the property of Messrs. Hopkins, Stobart, and Co., together with their wives and sweethearts, numbering over 1000, were on Saturday treated to a substantial dinner and tea by the owners, the North Bitchburn Coal Company. Mr. H. S. Stobart, of Witton Tower, said as that was the twenty-first anniversary of the North Bitchburn Coal Company he was most happy to meet all his workmen; and he, as the managing partner, had to congratulate them on the fact that since these works began there had been fewer differences amongst them than at any other colliery in the district. He believed that if such gatherings as these oftener took place amongst masters and their workmen there would be fewer strikes, and no call for Unions; and he trusted they would all meet under similar circumstances again.

THE REPORT FROM THE SELECT COMMITTEE ON MINES has just been issued, and it contains much valuable information, and many suggestions of value, which will, no doubt, be adopted either wholly or in part, when future legislation takes place on this important subject. The first recommendation of the Committee is that boys are not to be employed in mines under 12 years of age, and this exactly meets the views of the masters here, and also the better class of workmen; indeed, it has been the practice here since the passing of the Act of Parliament of Aug. 28, 1860, to carry this out as far as practicable, the only difficulty being that the more needy class of workmen will have the boys in under 12 if possible. The clauses in the Act of 1860, respecting education, certificates, &c., have been almost a dead letter. The restriction of the employment of boys under any circumstances to those who have completed 12 years would be the most simple and judicious plan possible. Boys under that age are not of much value underground, and they have a chance of being kept at school until the age of 12 years to acquire some education suitable for them, which ought certainly to be supplemented by further culture at a night school. The attendance at the night school ought to be for (say) three nights per week. Unless this is attended to the knowledge acquired previous to entering the mine will be speedily lost, and the boy will fall into a state of "pit barbarism," but too well known. This night education ought to be continued until the age of 16 years. It is thought by many that the education of boys ought to be compulsory, and unless this is done the general decent education of the workmen of this country will never be achieved; at any rate, we are very far from being in a satisfactory state at present in this respect. *(To be continued.)*

SUNDERLAND WATER COMPANY.—Mr. George Hardcastle sold by auction in Sunderland on Friday, by order of the directors, 1200 new shares in the Sunderland and South Shields Water Company. Before raising the hammer, Mr. Hardcastle stated that the additional capital was required to complete the important extension of works at Ryhope, rendered necessary by the rapidly increasing demand for water throughout the large area included under the powers of the company's Acts. He showed that the natural supply of water within that area might be regarded as practically inexhaustible, when it was known that in winning the Murton Colliery there was required to keep down the water a pumping power of 1500 horses, raising 10,000 gallons per minute, or about 14,500,000 per day. The colliery was won without in the slightest degree affecting the wells of the Sunderland Water Works, the geological stratification of which, though a continuation of the Murton, is about 200 ft. lower. Twenty years ago the pumping power of the Sunderland Company was equal to only 200,000 gallons per day; now it raises twenty times as much, and when the Ryehope works are in operation the company will have 6,000,000 gallons of water for daily distribution. Twenty years ago the company's customers were 800; now they are 40,000, and sub-distribute the purest spring water to a population of about 200,000 people. Twenty years ago the company's revenue was considerably under 2000*l.* a year, now it is 25,000*l.* Mr. Hardcastle further said that to show the solid value of the company's shares he might be permitted to mention, that while the 500,000*l.* capital of another large water company in a populous town and district, yielded but 27,000*l.* of revenue, and a dividend of 4 per cent., the Sunderland capital of less than 200,000*l.* produced a revenue of 20,000*l.*, and a dividend of 9½ per cent., which would doubtless soon rise to 10 per cent. The sale then proceeded, and in 10 minutes the 5*l.* shares were eagerly bought up in 33 lots, at the following prices:—445 shares, at 9*l.* 4s.—4094*l.*; 423 shares, at 9*l.* 4s. 6d.—3902*l.* 3s. 6d.; 332 shares, at 9*l.* 5s.—3071*l.*; 1200 shares realised 11,067*l.* 3s. 6d., or an average price of close upon 9*l.* 4s. 6d. for a 5*l.* share.—*Northern Daily Express.*

REPORT FROM MONMOUTH AND SOUTH WALES.

AUG. 22.—No material alteration has taken place in the Iron Trade during the past week. As far as actual transactions are concerned, the home trade continues remarkably quiet, and there is no particular animation to note in foreign demand, although the advices lately received are rather encouraging; but if present anticipations are realised, some good contracts will be in the market before long Some very large orders have, it is said, been given out by the Russian Government for railway iron to the native works, so that competition from that quarter need not be feared for some time to come. A similar step is being contemplated by the Belgian authorities. Exports to the United States are tolerably good, although far below what they were a few months ago; but there is a probability of an increase taking place in the demand. As already remarked, makers place great hopes on the result of the passing of the several bills to relieve the railway companies from their financial difficulties, and they expect that there will be considerable rail requirements in the markets in the course of the present month. A large number of miles of railways required renewal, and it is quite clear that ere long contracts for the same must be given out. There is a fair demand for bars of repute, and a slight improvement has taken place in the sale of pigs.

The iron-making branch of the Blaina, Cwm Celyn, and Coalbrook Vale Works has been stopped, as, contrary to all expectations, the efforts made to sell the concern have failed, and the Inspectors, under the circumstances, felt they had no alternative but to stop that branch of the concern. A large meeting of the workmen has been held, and, after paying a warm tribute of respect to Mr. Levick as a master, it was resolved to wait upon Mr. Abraham Darby, of the Ebbw Vale Company, and ask him to keep on the works. Mr. Darby was from home when the deputation called at his house, but as the Ebbw Vale Company are pretty well stocked with ironworks at the present time, and taking into consideration the unremunerative prices for iron, it is not at all likely that the wishes of the deputation will be complied with. There is a good business doing in Tin-Plates, and there is no hesitation on the part of buyers to make purchases.

The little change to note in the Steam Coal Trade is on the side of sellers, and although a degree of slackness still prevails, it is not so bad as was the case a month or six weeks ago. The advices also from the continental markets are not so discouraging, as it is not improbable that before long some revival will take place. About the usual quantity is being sent to the mail packet stations; but it cannot be said that any particular animation prevails, even in this branch. To a certain extent the efforts made to increase the sales at Birkenhead have been successful, and it is evident that both the railway companies and the colliery proprietors will do their utmost to further increase this trade. Coastwise there is an average business doing in house qualities, and preparations are already being made by buyers for the winter season. For coke the demand is slow, and the works are but indifferently employed.

At the Monmouthshire Wagon Company half-yearly meeting, on Wednesday, Mr. T. Gratrex in the chair, a dividend at the rate of 5 per cent. per annum for the half-year just ended was declared. The profits of the company would have enabled the directors to have declared a larger dividend, had it not been that some exceptional expenses were required to be met.

At the Gloucester Wagon Company meeting, to be held on Tuesday, a dividend of 10 per cent. per annum will be declared, and there will then remain a balance of 11,262*l.* 14s. 10d., which the directors proposed to deal with as follows:—To transfer to guarantee fund 3000*l.*, and to carry to next account 8202*l.* 14s. 10d.

The Taff Vale Railway directors have determined on recommending a dividend for the past half-year at the rate of 8 per cent. per annum, as compared with 10 in the previous, and 9 in the corresponding half-year. The decrease in the dividend is attributed to the slackness of the steam coal trade, the unparalleled depression in the iron trade, the Penarth lease, and various other causes; but the shareholders need be under no apprehension whatever, for as soon as the coal and iron trades resume something of their former activity, so also will the prospects of the Taff Vale become more prosperous.

INUNDATION OF A COLLIERY.—An accident of a serious nature, which caused a considerable amount of damage, placed the lives of a number of men and boys in jeopardy, and put a stop to the working of the mine for some days, occurred on Monday morning at the Pennywell-road Colliery, Bristol. The pit was formerly worked by the Pennewell-road Coal Company, but for 12 months it has been in the possession of Mr. Brown, of Seymour-villas, Stapleton-road, who has done everything in his power to render its workings safe and convenient to the colliers. Amongst the improvements which he introduced was one at the suggestion of Mr. Lionel Brough, the Government Inspector of Mines—the driving of a "travelling way" from the great vein into the upcast shaft, whereby a dangerous portion of that shaft was avoided; and its importance was fully shown on Monday, when by means of the travelling way, a number of men were enabled to escape from what appeared to them almost certain death. At the bottom of the downcast shaft there is a "drift," 130 yards long, leading to the "deep" workings. At the end of this "drift" there are some old workings, which had been stopped up before the whole of the coal had been exhausted, and it was resolved to attempt to again work them. Mr. George Britten, the manager, a man of great experience in the working of coal mines, took the necessary steps to break into the old workings, but the presence of water being suspected, "boring" was resorted to, to ascertain if such really was the case. Between 10 and 11 o'clock this operation was being performed, when some of the men present incautiously removed a large block of coal by the side of the "bore hole." Water immediately rushed out with great force, and all attempts to plug up the orifice being in vain the alarm was given to the colliers in the mine, there being about 70 men and boys in it at the time. The miners made their way as quickly as possible to the bottom of the downcast shaft, and the state of affairs having been communicated to those at surface, immediate preparations were made for bringing the men up. Load after load of the living freight was drawn up to the pit's mouth, and as the men made their appearance they were greeted with a hearty cheer by hundreds of persons who had assembled in the neighbourhood of the mine. A number of men, unable to bear the suspense of waiting at the bottom of the shaft until their turn to be pulled up should arrive, made their way along a "travelling way" to the bottom of the upcast shaft, where preparations had been made for drawing them up, and they were quickly raised to the surface. At length the whole of the men in the colliery were got out, Mr. Britten, the manager, being the last to leave the pit. The men soon recovered from their fright, and every attention was bestowed upon them. The water continued to flow down the "drift" until there were 9 or 10 ft. in the shaft above the landing-place, but the engine was at work the whole of the day, raising water at the rate 200 of gallons per minute. It is hoped that the water has not got into the "deep" workings beyond the place where the irruption took place, for if it has the damage will be immense. As it is, a considerable loss must accrue to the proprietor.

FOREST OF DEAN.—Nothing has transpired during the week to alter the position of affairs in this district. The many months of abated good luck in the coal and iron trades gives a very cheering aspect to matters generally, and while the success of these staple branches has, of course, much to do with the domestic comforts of the more immediately connected of the Foresters, like the wave, it influences the whole, and neighbouring villages realise a corresponding benefit. As matters now stand, and the future appears to be not less cheering, it requires no great pressure to be put on one's credulity to think—if not believe—that the Forest of Dean is gradually casting away the reproach so long attached to its character. That this is an easy task cannot be admitted. A bad name identical with a district may be compared to a blot on the history of a nation, and to expunge it requires considerable atonement. The Forest of Dean, unlike some districts, has not assumed the character of a giant, because a more than usual time has been required for teething and shaking off the punyness of youth. The fact is no tropical sun with refreshing and genial rains have shed their influences on the district to force its growth, but, on the contrary, its development has been slow, yet not the less sure. The weakly boy oftimes becomes the strongest man. The gradual progress of a nation is no criterion of weakness. The district is steadily embracing those characteristics which denote strength, and its importance in the commercial world is daily becoming an undisputed and undeniable fact. One of its greatest hindrances has been inefficient and inequitable railway accommodation. Were there any probability of the latter being speedily removed, it would be regarded as a great boon; nevertheless, the day cannot be very far distant when that desideratum will in a measure be obtained—until then the owners of Forest minerals must be content with existing profits, small though they may be.

Speaking of railways, the ill-fated Central line has been the subject at another half-yearly meeting, held at the latter end of last week. Twenty-two half-yearly meetings have been held, and the line, although completed, is not opened for traffic. Under the presidency of Mr. A. P. Barton, the secretary read the report, which went to show that the railway was completed and was ready for traffic. The Chairman, in drawing attention to the report, said it was not necessary to trouble the meeting with many observations. They had at length completed their line, and which he had lately gone over. It had been constructed in the strongest and most durable manner. The bridges were admirably built, and the line would bear any amount of traffic. It would be at least six months before there would be any considerable trade on the line, but when the collieries were fully opened there was every probability of a large business being done. The coal field into which the line ran was of large extent, and was the nearest to the metropolis of any in England. The report was adopted.

At the Gloucester Assize, a case of some interest was heard, in which the well-known Shackleford and Co. were plaintiffs, and Mr. Goold, of the Forest,

defendant. The action was brought to recover 37*l.* 10s., being the hire of certain trucks. The trucks in question had been hired by the defendant for many years. This year notice was given by defendant that the trucks would not be required after March 31, and they would be delivered to the plaintiffs at Bullo Pill, on the South Wales Railway. Soon afterwards the trucks were claimed by a Mr. Jos. Bennett, of Littledean, under a mortgage to him, with others, as security for 1000*l.* advanced to Messrs. Shackleford. The sum claimed was for rent since March 31. After a long conversation between the judge and advocates engaged, a verdict was taken for plaintiffs, subject to certain conditions. It was generally believed the matter would be referred to a barrister to decide the legal and equitable rights of the parties, and also as to the right of ownership, it being considered that Mr. Bennett would be one of the interested parties.

In addition to the favourable state of the coal and iron trades, the tin trade continues in much the same healthy and satisfactory state as reported last and preceding weeks. The other branches of Forest industry manifest activity in all their departments.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Aug. 22.—There is no change to notice in the Iron Trade, and it is satisfactory that such flow as the tide has taken has not been followed by an ebb. Some of the works are fairly employed, but many are still short of orders, and a considerable further extent of improvement is necessary before the trade in either district of the county can be reported to be even moderately active. There are good orders for hoops, and also for thin sheets, but the plate-mills are still doing little. The makers of galvanised iron are busy. The Hardware Trades of South Staffordshire must be reported dull, and in some branches very slack.

Two men were killed by an explosion at the Cinder Hill Colliery, near Longton, on Tuesday afternoon. Two months ago there was a fire in the Yard seam of coal, and, in order to extinguish it, the downcast shaft was closed by a scaffold, so as to cut off the supply of air, and thus extinguish the fire. On Monday morning the scaffold was removed, and Mr. James Williams, one of the partners, and one of the men, descended the shaft as far as the Yard seam, and came to conclusion that the fire had ceased. On Tuesday morning, however, smoke was seen, and, to prevent the air reaching it, a close scaffold was made about 28 yards from the bottom of the pit, and on this three men were at work on Tuesday. One of them went up to get his dinner, and whilst eating it an explosion occurred, which displaced the scaffold, and thus the two men were precipitated to the bottom of the shaft, one falling into the sump, and the other upon an iron plate. The recovery of the bodies was attended with considerable difficulty and danger. At an inquest this afternoon, Mr. Wynne, the Inspector of Mines, who was at the place on the day of the accident, was present. The above facts were spoken to, and Mr. Williams stated that there had never been an explosion in the pit before. Mr. Wynne was of opinion that sufficient care had not been employed in isolating the place, and the jury, whilst returning a verdict of "Accidental Death," recommended more care in the management of the pits in future.

A man died on Friday last from the effects of a fall of 1½ cwt. of coal from the roof at the Mear Hey Colliery, near Longton, on Aug. 2.

The authorities of the pottery towns are perplexed what to do with their sewage. These towns, with some 130,000 inhabitants, all naturally drain into the Trent, or into affluents of that river, and all of these, including the Lyne, from Newcastle-under-Lyne, which is not one of the Pottery towns, enter the river before it reaches Trentham, where stands the princely mansion of the Duke of Sutherland, with its lovely gardens and its noble wooded park. Until it reaches Trentham the river and its affluents have a considerable descent, but in the grounds of his Grace the channel becomes level, and the water expands into small lakes, which form a striking element in the picturesque beauty of the gardens. The excrementitious and other refuse of 130,000 people, with the various works carried on in a busy district, begin to stagnate, to ferment, and to stink—that is the only word—in the grounds of Trentham Hall, and a horrid scum often covers the water which has such fair banks, and which, if it were not a sort of thick soup, would reflect the palatial edifice. It is evident that this cannot continue, and Mr. Elliott, civil engineer, who acts for the Duke, has suggested to the local authorities a plan for the main outfall sewer, to be constructed at the cost of the whole population of these towns, and which would enable them to carry the sewage below Trentham, and there discharge it over the land, rendering that increasingly fertile by imparting to it the elements which now pollute the streams.

Mr. R. Baker, Inspector of Factories, reports very favourably of the working of the Acts in the Potteries, and states that 3000 children are now at work in the district under the half-time system, the very strongest proof of the acceptance of the principle of the Act, as this half-time system is always condemned as hopelessly impracticable.

The attention of ironmasters in South Staffordshire has been recently directed to the process invented by Mr. Heaton, of the Langley Mills, Nottingham, for purifying pig-iron, and converting it into a kind of steel. The following is a brief description of the process:—

"The mode of procedure is to place from 7 to 9 lbs. of nitrate of soda in a movable bottom, which, with a perforated iron plate over the salt, is clamped to a cylindrical converter, lined with fire-bricks, and having an upright funnel to carry off the products of combustion. A charge of about 14 cwts. is run into this converter from a cupola. Rapid combustion takes place for about two minutes and a half. At first ruddy fumes, arising from the decomposed nitrate, are given off. The flame then becomes bluish, and finally dark coloured, after which a series of sharp explosions follow in rapid succession, and brilliant sparks are given off, something similar to the scintillations observable in the Bessemer process. When the action has subsided the metal is run into ingots."

The metal thus produced has a porous character, and looks more like chilled cast-iron than anything else. It is said that a substance closely resembling steel has been made by this process, but the experiments do not seem to have been yet conducted with that systematic accuracy which is desirable before the results can be relied on. The trade will await with much interest the further experiments in progress, and the publication of analyses showing the nature of the products obtained by this chemical process. Already several Staffordshire firms have taken up the matter, and are said to be satisfied of the value of the process. They intend to apply it specially to the purification of the cinder iron produced extensively here.—*Wolverhampton Chronicle.*

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Aug. 22.—There is a very slight improvement at some of the works in South Derbyshire, so that there is, in fact, no alteration to note with regard to trade generally. A good deal of interest is just now evinced in the progress of the direct line of railway between Chesterfield and Sheffield. Why the great mistake was made in the first instance of allowing the main line to leave Sheffield out has never been satisfactorily explained; the Midland Company, however, are now correcting the mistake, although, no doubt, at a very large increase in the cost. The line will be a very heavy one, the Bradway tunnel being no less than 2040 yards in length. The excavations are made from eight shafts, and up to the present time upwards of 1600 yards have been made. About half-way there is another piece of work, consisting of a viaduct across the valley of the Drone; it will be composed of seven arches, 60 feet high, and 110 yards long. On the route of the line several new collieries are about to be opened out, so that the district through which the railway passes will be found a profitable one. The trade of Sheffield continues quiet, the ironmakers in particular being badly off for orders, and the same may be said with regard to most of the light branches of the steel trade.

In South Yorkshire there is a continued improvement, and some good orders have just now found their way into the districts, for rails in particular, in which for a considerable time very little has been done. At Milton there is a very good business being done in sheets, bars, and hoops, whilst at Elsecar the rail mill is kept fully going. The furnaces on the Lincolnshire side of the Trent are doing well, whilst several new ones are about to be built. Bessemer rails continue to be largely manufactured both for home and foreign lines. The demand for coal continues moderate; but there is not much doing to Hull, owing to the few vessels trading between that port and the North of Europe. To Grimsby business is rather better, and there is more doing in gas coal for various parts of the country. Coke is not in such brisk request as it has been, and at some of the largest establishments there are now considerable stocks on hand.

There is nothing new to state with regard to the Oaks Colliery; operations have been suspended for more than a week, as the stuff that has been got out to within a few feet of the bottom, so that nothing more could be done until the mining engineers, in whose hands the colliery may be said to be, have resolved on the next step to be taken. The meeting is to take place on Saturday morning next, at the colliery, when a decision will be come to as to the best means of entering the workings and clearing them, so as to reclaim the bodies.

Mr. John Brown, of the Atlas Works, Sheffield, has received the honour of knighthood. Sir John Brown commenced business not a great number of years ago in a small way as an iron manufacturer, and by his perseverance has succeeded in making an immense fortune, which he largely devotes to the promotion of benevolent and religious objects. His works have gradually increased in extent, until they rank as one of the largest iron factories in the country and closely rival the stupendous establishment of Herr Krupp. John Brown's armour-plates are known all over the world, and the largest plate ever rolled was rolled at the Atlas Works, in the presence of the Prince of Wales. The works are now the property of a limited company, but the founder of them is largely interested in their prosperity. Sir John Brown worthily takes his place among the giants of British industrial enterprise.

Fearful Colliery Explosion—Loss of Fourteen Lives.—A dreadful explosion occurred on Tuesday, at Messrs. Bromilaw and Co.'s Garswood Colliery, Ashton, near St. Helens, Lancashire. This accident is the more appalling from the fact that a dreadful explosion occurred in the same mine on May 13, 1866, whereby 13 men lost their lives. The Garswood Colliery consists of four mines, to each of which a separate shaft works. That in which the explosion occurred is called the Little Delf Mine, and is the deepest, being 460 yards in depth The explosion was in a distant and remote part of the mine, 1000 yards from the shaft. The part is known as "the top level," and runs in the direction of Garswood Park. It is considerably higher than any other part of the mine, and is consequently more dangerous, as the gas rises to that part from the other workings. At the time of the accident 14 men and boys were engaged working in the top level, all of whom have perished; and it is a most providential circumstance that more lives have not been lost, as at the time the miners were all at work in the pit, but it is owing to the high level being very remote, and no other work being carried on in that part. The explosion was not heard in the pit very far from where it occurred, but its serious nature was at once feared, and the whole of the works were immediately stopped and the men withdrawn from the mines without delay. A volunteer exploring party was formed, which consisted of Thomas Molyneux, sen., under manager; Thos. Molyneux, jun., under manager; William Tickle, top manager, and a party of colliers, and shortly after the explosion they proceeded on their search, and after hours of toil they succeeded in recovering the whole of the 14 bodies, which were on being found removed to the bottom of the shaft, and not brought up to the pit mouth until night. The cause of the explosion can never positively be known; but it is conjectured that it was caused by the fireman (Topping) exploding a charge of gunpowder for Chestworth, as it is known he was to do so about the time of the accident. Strange to say, the explosion in May, 1866, when 13 lives were lost, was caused by Topping firing a charge, when he escaped: but he has now perished.

The Experiments with Safety-Lamps.—One of the events of the season, so far as regards the coal interest of the district, is, undoubtedly, the experiments for testing the safety of the various lamps in use in collieries. Last week, at the Barnsley Gasworks, all lamps, including the Stephenson, were made to explode; but since then, to more effectually test them, a place has been fitted up at the Oaks Colliery. On Monday last several experiments were made, the gas being taken from the 9-in. pipe down the No. 2 shaft, and conveyed by a pipe to the mechanics' shop, where the apparatus was fixed. Amongst those present were—Mr. Cooper, the manager of Earl Fitzwilliam's Collieries; Mr. T. Dymond, the Oaks; and Mr. Jackson, Silkstone Fall. Several Davy and Clanny lamps were tested, and found to be ineffectual in resisting the power of the gas and the current of air, for after being in a few seconds the gauze gradually got to a red heat, and then exploded. The Stephenson was then tried, but it resisted stoutly. Tested in every way it would not explode, but, after flickering for a minute or so, went out. Another lamp, by a Birmingham maker, also stood well, and did not explode, but gradually went out. So far, although at the gasworks the Stephenson was made to explode, still the test at the Oaks, on Monday, shows that it is, in reality, a safety-lamp, and about the only one that can be safely used in collieries making gas. Other experiments will be made for more effectually testing the Stephenson by Mr. Wilson, in the presence of the mining viewers of the district, but there is a very strong opinion that the lamp will maintain its reputation. It would, however, be premature to say more at present, as the experiments will be the means of finally settling a very important question, which has caused so much interest throughout the country, seeing that the safety of so many thousand persons are involved in the subject.

REPORT FROM SCOTLAND.

Aug. 21.—Pig-Iron is better this week, with more disposition to purchase, and prices are again hardening. Some makers of g.m.b. are short of iron, and are pressed for delivery; warrants are not over plentiful either; and delivery from stores ranges between 4000 and 5000 tons a day. This drain, if continued, will enhance the price of both warrants and makers' iron, and merchants are not without hope that a more remunerative business will be done in the autumn than was done in the summer months of this year. Our trade with America, both direct and *via* Liverpool, is of a cheering nature, and is aiding our shipments, which for the week ending yesterday were 15,960 tons, against 13,460 tons in the same week of last year. The market was steady to-day, and a few thousand tons changed hands at 53s. 4½d. cash, closing firm 53s. 6d. a month. Some of the makers have to advance their price 9d. a ton, owing to the shipping demand. Gartsherrie, 61s.; Coltness, 59s. 6d.; Summerlee, 58s. 6d.; g.m.b., No. 1, 54s. 3d.; No. 3, 53s. 3d. Finished iron is considerably improved, and a majority of the works are running full time, some of them being busy with orders, principally for shipment, the home demand being rather quiet. Some of our ironfounders are exceedingly slack, while makers of certain classes of pipes, now in demand, are fully employed. Shipbuilding iron is without change. Plates, 8*l.* 2s. 6d.; angle-iron, 7*l.* 5s.; bars, 6*l.* 17s. 6d. to 7*l.* 5s.; nail-rods, 7*l.* 5s., less usual discount. Coals are in fair demand for steam and household use, at from 6s. 9d. to 7s. 9d. a ton, according to quality. The export trade is in a healthy condition, our shipments for the week just ended being 29,950 tons, whereas in the corresponding week of last year they only reached 23,790 tons, which is fully 6000 tons in favour of this year. According to arrangements, which we formerly alluded to, a small detachment of Cornish miners arrived at the Motherwell Junction of the Caledonian Railway last week, for the Wishaw coal fields. This fact having become known to the colliers on strike in the district, the Cornishmen were waylaid, and having been cozened by those who were deputed to take the task in hand, after attending a miners' meeting, were persuaded to return home without ever having gone down a pit. The company who were instrumental in bringing them hither was prepared to give them employment either in the working pits of the firm, in a pit by themselves, or in the pits of the Glasgow Iron Company, their wages being guaranteed for one month at the rate of 4s. 6d. per day. One would have thought that starving Cornish miners would have paused before throwing such an offer over their shoulders. And it should not be disguised, that if Trades Unions are to have the power of intercepting workmen on the way to their employment, and thus interfering with the productive power of the country, and the employment of the inhabitants, it appears to be almost a self-evident proposition that Government will have to regulate and control such power, so as to render it innocuous. In these circumstances, Messrs. Scott and Gilmour made a proposal to the men on strike, which was at once accepted, to regulate the wages for the next twelve months thus—

"During the remainder of August, as also September and October, 4s. 6d. per day; during November, December, January, and February, 5s. per day; March and April, 4s. 6d. per day; May, June, July, and August, 4s. per day."

As compared with the wages which the men had been getting, the rate offered for the next two months represents a rise of about 6d. per day. The amount paid during the summer has averaged 4s. 6d. a day, but this included powder, whereas the 4s. 6d. now to be allowed is, we believe, exclusive of that item. Mr. Russell has agreed with his men on the same terms, and already agitation has commenced in the other districts for the same tariff. Of course, it is very evident that those masters who are willing to accept of these terms will have their pits filled with hands, but will the ironmasters agree to these prices? or rather is it possible that they can concede these wages to their colliers when several pits here and there have to be let alone, as they cannot be worked at the present rate of wages? A proposal has been set on foot to bind all coalmasters and colliers by a special minute of agreement, which contains the following provision:—

"In the event of any unusual depression or activity taking place in the trade to such an extent as may seem to warrant a change in the above rates, we agree that a meeting shall be called of representatives from the employers and workmen to consider the circumstances that demand such alteration, and that before a strike or 'lock-out' is resorted to on either side the matter in dispute shall be submitted to a neutral party to adjudicate between the two."

How the body of coalmasters may look on this proposition we shall know in a week or so, but we have reason to fear that the ironmasters will neither accept of the tariff of wages, nor of the minute of agreement in its present shape. In the meantime it should be known throughout the length and breadth of the land that Cornish miners *will not* accept remunerative labour, freely offered to them, because it will isolate them from Trades Unions, which all but compel their members to restrict their work to eight hours a day, and their week to four days, in order that the price of their labour may be enhanced, at the expense of the trade of the country and the private resources of the community.

Shipbuilding on the Clyde is not improving, although an occasional hull is laid down. Messrs. W. Denny and Brothers, Dumbarton, have contracted to build for the Viceroy of Canton, China, two composite gunboats, of 350 tons each, with engines of 60-horse power.

Scotland can boast of her pebbles and fine specimens of quartz found in the form of perfect crystals, varying in colour from pure white to amber and a deep brown. Our native pebbles are of singular conformations, and are of all colours—red, green, grey, auburn, yellow, and also of the jasper kind with a mixture of colours. A curious phenomenon connected with the colour of pebbles is, that each colour is found only in distinct localities. Pebbles are found in every county of Scotland, but more plentifully in Ayrshire, Argyleshire, Aberdeenshire, Perthshire, Morayshire, Roxburghshire, and Mid-Lothian. There is the Arthur Seat jasper, found on Arthur's Seat; the Pentland pebble on the Pentland Hills; the Perth bloodstone on the Ochil and Moncrieff Hills: the Montrose grey pebble at Montrose, and so on. A small rivulet in the land of Burns contributes one of the richest and finest specimens of jasper that is to be found in Scotland, The Arthur Seat jasper deserves special notice, being rich in colour and variegated in streaks. It is found in large quantities on the face of the hill. On the tops of the Cairngorm ranges, in Aberdeenshire, the cairngorm stones or crystals are found in great abundance. Not many years ago the Scotch amethyst could be plentifully procured and cheaply purchased, but now it is becoming scarce, and brings in the market from 50s. to 60s. per ounce. Another favourite Scotch crystal is the garnet. It has a red or port-wine colour, and is found in very small quantities, of no great size, at Elie Point and along the sands on the coast of Fife. A jewel in which the yellow cairngorm, the lilac amethyst, and the pink or red garnet are harmoniously combined, is remarkably fine. Our moss agate is not the least beautiful and valuable of gems; and for certain styles of setting it is peculiarly suitable. But the chief of our Scottish gems is the pearl. There was a tiara finely set in gold and enamel in the Dublin Exhibition, valued at 500*l.*, made of Scotch pearls. Fine specimens of pearls are found in the Rivers Forth, Teviot, Clyde, Earn, Tay, Tweed, and the rivers of Ross and Sutherlandshires. A fine specimen not larger than a pea will bring 25*l.*, and larger ones will command at times as much as 80*l.* or 90*l.*

SILVER MINING IN MEXICO.

[TO THE EDITOR OF THE "MINING JOURNAL."]

Sir,—In the Journal of July 20 you published some particulars respecting a company which is being formed for working the silver mines of Espinosena, Salaguena, and Demasias, situated at San Antonio, in Mexico. In compliance with the wish of a friend, I enclose to you a communication, recently received from the United States, which will be read with interest by those concerned in that undertaking, and also by many other of your readers.

I may add that Mr. Chynoweth, who has recently arrived from Mexico, stated, at the meeting of the San Pedro del Monte Mining Company, a few days since, in reply to Major-General Jacob, that there was no danger whatever of being interfered with in pushing on mining operations in Mexico—indeed, less so now than when the Imperialists were in power: the Liberals have always shown every kindness to those engaged in industrial occupations, and the interests of the whole country are in favour of protection to the miner. Mining must, therefore, now progress in Mexico. A Reader.

On Sept. 8, 1546, Juan de Tolosa, one of the lieutenants of Cortez, reached the Zacatecas Sierra without much opposition from the natives. It was not long before he discovered the universal richness of the district, and induced some of his companions, among them Balthasar Tremino, Cristobal Onate, and Diego de Ibarra, to form a settlement with him. This was done on March 21, 1548, and the mine of Alvado was opened upon the celebrated Vetagrande, or Great River. On June 11, of the same year, they opened the San Bernabé Mine, and on Nov. 1 the *Tajos de Panuco*—openings of Panuco. The mines proved so productive, and gave such vigour to the settlement, that in 1588, only 40 years after the settlement was made, the title of "noble and loyal city" was conceded to Zacatecas, and a coat of arms given to it. The first mine that was opened, the Alvado, was worked for a long time by Fernando Cortés, and in the State archives are found the books which he kept of all the expenses and returns during that period. They are very curious old documents, and are illustrative of the exactness with which all the accounts of the old Spaniards were kept in those times. The oldest formation found here is the sienite, and upon this rests the great slate formation, in which, towards the north, are found nearly all the great metalliferous veins. An occasional stratum of siliceous slate, grauwacke, and other characteristic transition rocks are to be found. To the south are found two kinds of transition porphyry, but one is older than the other, the youngest resting upon the slate and alternating with it. These formations of porphyry are in Mexico generally poor in metalliferous veins, with rare exceptions, such as Pachuco, Real del Monte, Real del Chico, Zimpan, Angangneo, and Huantla. In these the porphyry is eminently metalliferous. Upon the sienite and slate are found two formations of secondary limestone—one to the north-east the other to the north-west of Zacatecas, the latter being the most extensive. The metalliferous veins found here are almost innumerable, and traverse the mountains in all directions. They, however, as a general rule, run east and west, dipping towards the south. So clearly are they defined upon the surface that they may sometimes be readily traced for miles without the aid of the magnetic needle, while all the phenomena of parallelism and intersection are seen in the light of day. Although Vetagrande, San Bernabé, and the Cantera are the principal mother veins, there are many others which are known to have produced large amounts of silver, especially the Tecolotes and Esperanza spur, near the Vetagrande, which has been pierced by many shafts, upon which are 13 rich mines. Zacatecas may, however, be divided into three great groups of veins and their accompanying mines. In the first are found sulphurets of silver, considerable native silver, and very little argentiferous galena, with pyrites of sulphur in small cubes. To this division belongs the Cantera vein, and the veins that are found to the south of it. The second is composed principally of the sulphurets and of a little native silver. Considerable ruby silver is also met with, and sometimes a little argentiferous galena is occasionally found, pyrites of sulphur and splendid argentiferous crystals of sulphur, resting upon very hard green-stone, which is traversed by fine veins of quartz and calc-spar. Under this class come the San Bernabé and all the veins that traverse the great space included between the Cantera and Vetagrande. It is the most extensive, and embraces the greatest number of silver deposits, including the Tecolotes Esperanza spur, above mentioned. The third and last consists of the sulphurets of silver, with sometimes the ruby silver dominating, and more or less native silver is found; argentiferous galenas, fine and coarse grained, brown, black and yellow blendes, but not very abundant; some copper pyrites—all in quartz—horn-stone, some calc-spar and brown spar. To this may be referred the Vetagrande and all the veins to the north of it.

Vetagrande is unquestionably one of the richest deposits of Zacatecas, not only in the extent of its works, but for the enormous yields of silver which it has produced since 1545, the year in which it was discovered. It is situated about 4 miles north of the city, and has given origin to the town of Nuestra Senora de Guadalupe de Vetagrande. It has always been a regularly organised mining district, with its proper mining deputation. This, however, was, until 1828, subject to the jurisdiction of Zacatecas; but in that year its local jurisdiction, in conformity with the general law, became absolute. The great vein is situated directly north of Zacatecas, and is at the northern extreme of a ridge, which, parallel with the vein, runs from east to west and seperates it from the city. On the road from Zacatecas to the vein you pass, first, numerous works for the beneficiating of the ores; then after crossing several small veins, many openings of mines are seen, drainage, machinery, ruins of old works, piles of debris around shafts, and earths that have been thrown out of the mines, all in strange contrast to the wild and picturesque summits and gorges of the mountains which lie around you.

It is difficult to ascertain the exact amount of silver that has been taken from the Vetagrande, and an approximate estimate only can be made. The Bordas and the Ansas, who in 1765 worked the points of San Acacio, Alvarado, and San Francisco, &c., took out enormous quantities of silver, because the account of these great yields is still preserved with pride. The Milanesa Mine, worked by the old Counts of Santiago de Laguna, gave in two different epochs such immense products, even in the extraction of the silver from the ores, that the houses of the Counts of San Mateo Valparaiso and the Marquis del Jaral de Berry were restored to their old splendour. Afterwards the house of Ansa enjoyed another great yield, which they took from a branch of the Vetagrande in the San Borja Mine. The points of Alvarado, Gajuelos, Concepcion, Gallega, and Cata de Juana have produced in different epochs very considerable sums. From 1790 to 1826 the Vetagrande Company deposited in the treasuay of Zacatecas, from only a few mining claims, 2,463,716 marcs (8·50 to the marc) of silver produced by them in that period. The general direction of the vein is north 61° west, and its inclination to the south 30°. From the Angel on the east, to Santa Rita on the west, a distance of 7 miles, there are mines opened upon the vein; but the part most worked and best known, and which has given the greatest riches, and in which are situated the most famous mines, such as San Acacio, San Francisco, Alvarado, Esperanza, Gajuelos, Concepcion, Masias Urista, Milanesa, Gallega and others, embraces an extent of 5000 yards from the excavations of Angel to the open cuts of Cata de Juana.

It has been observed that the Vetagrande, like the great mother vein of Guanajuato, is formed of three veins or bodies, which are separated by intermediate rocks of more or less thickness. The total thickness seldom exceeds 90 ft., but it is variable, and where the three veins unite, as at San Acacio, forming a single vein, it is about 15 ft. Some measurements have given the upper vein in the San Juan de Dios Mine 12 ft., the middle vein 14, and the lower 9 ft. The entire measurement of the three ore-bearing veins averages 30 ft. The mines, it has always been found, are very easily kept free from water, two malacates being sufficient to drain the vein in the dry season, and eight or nine in the wet.

The San Bernabe vein is situated between the Vetagrande and the city, and is the first mother lode discovered by the Spaniards. It runs north-east, with an inclination to the south, and traverses mountains of soft slate. The first occupants worked it with great advantage, and for many years it produced a large amount of silver. Its most productive mines have been San Bernabé,

Rondanera, Malanoche, Guadalupe, and Peregrina. Zumalde and Campa formerly worked the Rondanera and Guadalupe mines, and such were the enormous amount of silver taken from them that they purchased a shaft outside their limits, paying $90,000 for it, and this because it made the drainage a little more convenient. This was in 1736. The mine of Rondanera was afterwards abandoned by them, but was reopened in 1749 by Ygnacio Arrieta, who from the Chalverstle gallery took out in a single week more than $600,000. In 1784 the cure, Rafael de las Piedras, took out of the same mine over $300,000, and Antonio Tiagos took from the Peregrina gallery, in the same year, $600,000. In different epochs the Rondanera has given four *bonanzas;* and the last one, taken out in a few weeks, gave a nett profit of $180,000.

The CANTERA vein is very near the city, and traverses the Bufa mountain, in a direction north 63° west. From this point it bends to the south, and is associated with the Quebradilla vein. The average thickness of the vein is 36 ft.; but owing to the low yield of the ores, which are very abundant, it has not been so much worked as the other principal veins. The general yield of the Cantera vein is from $32 to $40 per ton. The mines, however, have at times produced very largely, in one instance giving such wealth that one of the owners received the title of Conde de Santiago de la Laguna. He purchased enormous estates, and accumulated from his mining property a colossal fortune.

The QUEBRADILLA MINE is a spur of the Cantera vein, and here Nature appears to have been prodigal of her wealth; but the amount of water had always made it expensive working. In 1737 a company opened it, and derived a profit in a short time of $260,000. The Bordas and Ansas, after it had been abandoned, reopened it in 1775, and at immense cost for drainage. It produced them in this epoch considerably more. Again abandoned, it was early in this century reopened by Fermin Apezechea, who found it impossible to drain the mine with 16 malacates well served; and such was the flow of water that $400,000 were spent in the drainage before a single stone was taken out. To give an idea of the extent to which this mine was worked at this epoch, it may be stated that there were employed 1415 men in the interior and 1135 in the exterior works. There were, moreover, 800 horses used for the machinery, and these consumed annually 20 fanegas of corn and 1000 tons of straw. The mine at that time was producing about 1000 tons of ore weekly, the total expenses for taking it out averaging $20,000 per week.

I visited the QUEBRADILLA MINE a short time since. The main shaft is just beyond the south side of the Zacatecas park, and many of the galleries are under the city. Clothed in an old suit, I seated myself in a rope sling, and clinging to the main rope was gradually lowered into old mother earth. The shaft is about 600 ft. deep, and reaches to the floor of La Luz. The mine was, however, below this to a depth of 900 ft. There is considerable water in the mine, all the galleries were dripping, but were drained to the main shaft, where a Cornish engine of 120-horse power effects the drainage. This engine cost on the ground $120,000, and the cost per day of keeping it running is $90. There are from 500 to 600 men employed on the interior and exterior works. The yield of the mine has averaged $500,000 per year for the last 10 years, and has, after reimbursing the stockholders for the original outlays, paid them a nett profit of $160,000 annually. The extent of the mine is 2000 metres on the vein. In one of the lodes I noticed that the workmen were getting out ore that paid $600 per ton; in others from $80 to $160 per ton. The average yield is $80. Much ore is worked that pays but $20 per ton. The average cost of all hacienda work for extracting the metal is from $11 to $12 per ton, including quicksilver The ore of the Quebradilla is held in veins that run from 1 ft. to 36 ft. thick.

Near the Quebradilla is the CARNICERIA, 600 ft. deep. After reimbursing the original cost of opening, it is dividing $48,000 per month among the stockholders. The San Rafael, on the same vein, is doing nearly as well. The San Martin Mine, in the suburbs of the city, now worked by Dr. G. M. Prevost an American, from Philadelphia, is paying at the same rate. It is one of the best mines in the whole district, and, undoubtedly, is the best managed. Its ores are very abundant, and average about $55 per ton. The Vetagrande mines, under an English firm, are also yielding splendidly; and although they have been very much worked, and require a very large capital to develope the msuccessfully, there is little doubt but they will prove as famous in the future as they have in the past.

On the San Bernabé vein the RONDANERA MINE is again being drained, and, from some of the upper galleries, such promising ores are found as indicate another great bonanza at no distant time.

Many mines have been worked in a small way, and drained by hide buckets, or *malacates*, until these were no longer available to the poor mine owners, who could not buy the necessary machinery for pumping. Among these are found the most promising of all the Zacatecas mines—the Esperanza, Tecolotes, San Dorlo, El Tirito, San Geronimo, all on the veins of Tecolotes—and the San Gonzalo, No Pesado, and San Cayetano, on the San Gonzalo vein. The ores from these mines, which are exceedingly rich, average $120 per ton, and are abundant, while frequently large quantities have been taken out paying from $500 to $800 per ton. They have been worked to an average depth of 150 feet, every mine paying well to the depth that the miserable system of drainage would permit.

The following is the amount of silver produced at Zacatecas:—

From 1548 to 1810	$588,041,956
From 1810 to 1818	20,060,363
From 1818 to 1825	17,912,475
From 1825 to 1832	30,028,540
Total in 284 years	$656,043,335
To this may be added an average product since 1832 of $4,000,000, which for 35 years makes	140,000,000
Making a total product of	$796,043,335

There are now some 12 mines actively worked within a radius of five miles from the Mint, and these are now producing about $5,500,000 per year the coinage of the Mint from these mines was, in the month of April of this year (1867), $520,000. Were we to swell the above sum total by the amount which probably escaped coinage, and has been smuggled out of the country since the mines were opened, we should find that the Zacatecas district has produced since 1548 at least $1,000,000,000.

From a careful estimate by J. M. Bustamente, in 1829, and corrected and republished, in 1832, by C. de Berges, to whose work I am indebted for much of the above data, it is supposed that the average yield of all the Zacatecas ores since the discovery of the mines has been about $70 per ton. This, of course, includes all ores. Large quantities are constantly taken from the mines, yielding from $300 to $1000 per ton. These are counted as the first-class ores. The ordinary ores, however, cause the reduction to the average above stated. It is here seen that the Zacatecas mines give twice the yield per ton averaged by the mines of the great Comstock vein. By official report Gould and Curry averaged for half of 1866, $36·90 per ton; the Savage Mine, $42·38; Yellow Jacket, $32·51; Crown Point, $37·73; Hale and Norcross, $43·35. The average yield of the Comstock lode may be put down, according to official report, at $40 per ton of all ores. While we in the United States are boasting of our celebrated mines, we have here in Mexico stowed away in a quiet nook a mining population of about 40,000 people, with labour at from 37 to 50 cents per day, producing at least five and a half millions of dollars annually from some dozen mines, no one of which is five miles from the Mint.

This is, probably, the richest mining district of the world at this time, and I doubt if there are any mines in existence which have shown a more constant return for the labour expended than these have. Like all other Mexican silver mines, they have been free from the exactions which the shifting politics of the country have placed upon other sources of wealth. Probably one-fourth of 1 per cent. of the products of the mines would pay for all the forced loans ever levied upon them. I can only account from this from the fact that the Government is disposed to exempt this great backbone of its finances from the crushing laws that deaden its commercial industry. Were this not the fact there would be no mines worked in Mexico to-day. One very successful mine owner of Zacatecas has told me that, for the 10 years he has been working them, he has never had a cent to pay from forced loans, or anything but the regular *derecho de quinto*—3¼ per cent. on the product. It appears that from this and the export duty the Mexican Government has supported itself during its long and exhaustive wars, has paid for all its imports, and has, through its silver mines, preserved the national existence. There can be no greater commentary upon the value of the tangible silver wealth that lies in Mexican mineral veins, and of the development of which they would be susceptible under American energy and management.

NEW WHEAL MARTHA, NEAR CALLINGTON, CORNWALL.

Under Distress for Rent.

MESSRS. SKARDON AND SONS are instructed to SELL, BY AUCTION, on Monday, 26th August, 1867, at Twelve o'clock, at NEW WHEAL MARTHA MINE, near CALLINGTON, the undermentioned EFFECTS, taken under distress for dues to the Duke of Cornwall, comprising—

A powerful WHIM STEAM ENGINE, boiler, crusher, and sheds. Pullies and stands; capstan and rope; pair shears; sundry new and old iron and timber, &c.

The whole will be sold without reserve, and must be paid for at the fall of the hammer.

SPARE MINE MACHINERY AND MATERIALS FOR SALE.

TUESDAY, 27TH AUGUST, 1867, Eleven o'clock forenoon.

MR. BURGESS, Land and Machinery Valuer, is instructed by the Poldice Mine adventurers to SELL, BY PUBLIC AUCTION, on Tuesday, the 27th August, 1867, at the ST. DAY UNITED MINES, about one mile from Scorrier Station, the following valuable spare

MINE MACHINERY AND MATERIALS

Thereon, comprising ONE 85 in. PUMPING ENGINE, 10 ft. stroke in cylinder and 7 ft. in the shaft, with FOUR good BOILERS, about 11 tons each.

ONE 65 in. PUMPING ENGINE, 9 ft. stroke in cylinder and 7 ft. in the shaft, with TWO good BOILERS, about 11 tons each.

ONE 26 in. WINDING ENGINE, with ONE BOILER about 9 tons, with crusher attached.

ONE 20 in. WINDING ENGINE, with ONE BOILER, about 10 tons.

ONE 19 in. WINDING ENGINE, with ONE BOILER, about 10 tons, with capstan attached.

Four cast-iron balance bobs; two 60 feet shears, complete.

BISSOE POOL.—27 19 in. 9 ft. pumps; 11 18 in. ditto; 38 17 in. ditto; 3 13 in. ditto; 1 13 in. 6 ft. ditto; 1 18 in. 9 ft. working, with stuffing box and gland, brass bushing, &c., complete; 3 15 in. 10 ft. workings; 1 12 in. 10 ft. working; 1 11 in. 9 ft. working; 5 17 and 18 in. matchings; 6 17 in. H and top doorpieces; 2 15 in. clack seat pieces; 1 12 in. ditto; 5 17 in. plunger poles; 1 12 in. doorpiece, 6 ft. long; 50 pairs faggoted strapping plates; 1 angle bob; 1200 feet of main rods, 16, 15, 14, 12, and 11 in.; 25 7 in. 9 ft. pumps; 3 6 in. working; 1 5 in. ditto; 1 7 in. plunger case; bucket joints; tube of boiler; horse whim.

OPIE'S.—2 18 in. 9 ft. pumps; 22 17 in. ditto; 21 16 in. ditto; 19 15 in. ditto; 1 19 in. working; 1 18 in. plunger case, stuffing box, and gland, brass bushing (new); 1 16 in. working; 5 15 in. 12 ft. working; 1 14 in. ditto; 2 17 in. plunger poles; 2 15 in. ditto; 2 15 in. windbores; 1 17 in. H-piece; 2 17 in. doorpieces; 3 15 in. ditto; 1 15 in. clack seat piece; 2 15 in. stuffing box and glands; 13 11 in. 9 ft. pumps; 1 12 in. 12 ft. working; 1 10 in. 12 ft. ditto; 1 7 in. 6 ft. ditto; 1 6 in. 6 ft. ditto; 1 6 in. 12 ft. ditto; 2 16 in. 3 ft. matchings; 1 16 in. 18 in. ditto; 2 6 in. windbores; 1 11 in. H doorpiece and windbore; 1 6 in. H and doorpiece; 2 6 in. plunger poles; 18 shaft rolls, 12, 17, 24, 26, and 36 in.; 20 fathoms 2½ in. bucket rods; 2 wood balance bobs.

TRUSSAL'S.—70 13 in. 9 ft. pumps; 3 12 in. H and top doorpieces; 3 12 in. plunger poles; 9 7 in. 9 ft. pumps; 1 7 in. plunger pole; 3 13 in. plunger cases; 3 12 in. stuffing box and glands; 1140 feet of 12 and 14 in. main rods; 1 7 in. H and top doorpiece; 20 pair faggotted strapping plates; 1 balance bob.

BILLING'S.—3 13 in. 9 ft. pumps; 1 12 in. 12 ft. working; 2 12 in. matchings, 1 12 in. 1 18 in.

1 16 head stamps axle; 4 tons rod flange and door pins; 5 tons staples and glands, various sizes, in splendid condition; 4 15 in. bucket prongs; 10 fathoms 1½ in. bucket rods; 2 40 in. smith's bellows; 300 fathoms 12, 8, and 6 in. underground launders; 10 tons of good working chain, ⅝, 11-16; old timber, tram saddles, and a large quantity of other useful mining materials.

Three tons of junk, large and small; 6 tons new and old brass; 60 tons cast scrap-iron. Refreshments as usual.

To view the above, apply to Capt. COCK, the Manager, and the Agents on the mine; and for further particulars to Mr. BURGESS, Land and Machinery Valuer, Barncoose, Redruth.—Dated Barncoose, Redruth, August 6, 1867.

P.S.—Fare from Bristol to Scorrier Station only 12s. 6d. Every facility will be given to purchasers for removal. Catalogues may be had on day of sale.

IMPORTANT SALE OF A SLATE AND SLAB QUARRY,

WITH MACHINERY, PLANT, TRAMWAY, &c., and a quantity of SLABS, AT PENMACHNO, CARNARVONSHIRE.

MR. W. DEW WILL SELL, BY AUCTION, on Saturday, the 31st day of August, 1867, at Three o'clock P.M., at the Queen Hotel, Chester,

THE HAFODWRYD SLATE AND SLAB QUARRY,

With MACHINERY, PLANT, TRAMWAY, &c., situate at PENMACHNO, CARNARVONSHIRE, and distant four miles from the Bettws-y-Coed Station of the London and North-Western Railway.

The surface contains 415A. 2R. 13P., and from reports made by several gentlemen of undoubted experience and ability, the slate formation underlies the whole of it. It is held on a lease for a term of 21 years, from the 24th March, 1860, with power to renew for a like term on payment of the sum of £300. The royalty is moderate, being 1-15th, and the dead rents are as follow:—£10 per annum for the first five years (now expired), £20 per annum for the second five years, £30 per annum for the third five years, and £50 per annum for the last six years, such dead rents to merge in the royalty.

The quarry has been partially opened and worked, producing slabs of good size, and very suitable for all purposes; but, owing to inadequate capital, the local company were unable to carry out fully the intention of developing it.

The Llanrwst branch of the London and North-Western Railway is now extended to Bettws-y-Coed, four miles from Penmachno, and the same company have made a survey from Bettws through the estate, and within 200 yards of the quarry. There is ample water-power; and it is believed that a moderate capital would suffice for developing a large and profitable quarry.

The estate has upon it an excellent MANSION, beautifully situated, and this, together with shooting and fishing, could be arranged for on easy terms (the present owner not residing there), affording an opportunity seldom met with of combining business and pleasure. The PLANT and MACHINERY consists of a WATER-WHEEL 16 feet diameter, TWO SAWS, and ONE PLANING MACHINE, a large quantity of TRAM RAILS, IRON WAGONS, &c.

The purchaser of the lease to have the option of taking the plant, machinery, &c., at a valuation, otherwise they will be sold in separate lots. A quantity of slabs will be sold at the same time.

For catalogues and other particulars apply to Mr. MARTIN SMITH, Vale-street, Denbigh; and to the Auctioneer, Wellfield House, Bangor.

To see the property enquire at the Horse Shoe Inn, Penmachno.

RHONDDA VALLEY, GLAMORGANSHIRE.

TO COLLIERY PROPRIETORS, CAPITALISTS, AND OTHERS.

VALUABLE COLLIERY FOR SALE.

MR. DAVID EVANS WILL SELL, BY AUCTION, at the New Inn, Pontypridd, on Wednesday, the 18th day of September, 1867, at Three for Four o'clock in the afternoon, subject to such conditions of sale as shall be then produced, all that valuable COLLIERY, known as the

LAN COLLIERY,

Situate in the Rhondda Valley, within one mile of Pontypridd, and about thirteen miles from the port of Cardiff, comprising that excellent and well-known house coal vein, known as the No. 1 vein, under the Landraw and Gellywion Estates, the surface of which is about 600 acres in extent, held under an advantageous lease from Messrs. Thomas, for a term of twenty-one years, from the 30th day of June, 1866, subject to a moderate dead rent and royalties, with average clause, together with the colliery, will be sold.

All the drams, tram-plates, wood, colliers' tools, weighing machine, weigh-house, blacksmiths' shop, blacksmiths' tools and iron, carpenters' shop, stable, storehouse, five canal boats, and other requisites for carrying on the colliery.

The horses and harness employed in the colliery will have to be taken by the purchaser at a valuation.

The colliery has some very special advantages which recommend it to the notice of purchasers. It is worked by level, and has a natural drainage, and is now in full working order. The vein is of excellent quality, and has been proved on several sides of the property. The coal is now taken from the colliery by means of Messrs. Thomas's tramroad, which passes through the towns of Pontypridd and Treforest, passing close by the Taff Vale Ironworks to Messrs. Thomas's canal, which enters the Glamorganshire Canal at Denia Lock, a point eleven miles from the port of Cardiff. The way-leave to the Glamorganshire Canal is free.

The distance from the level to the Rhondda Branch of the Taff Vale Railway is about 300 yards.

To view, apply to Mr. WILLIAM THOMAS, the overman at the colliery.

A plan of the property may be seen on application to Mr. HENRY MORGAN, Mining Surveyor, Pwllgwain Cottage, Pontypridd.

For further particulars and copies of conditions of sale, apply to Messrs. GROVER and DAVIS, Solicitors, Cardiff; or to the Auctioneer, Pontypridd.

SHARES FOR SALE.

TO BE SOLD, BY PRIVATE CONTRACT, by order of the executors of the late owner, deceased, trustees for sale, ONE HUNDRED SHARES in the HOLLYBUSH COLLIERY AND COKE WORKS COMPANY (LIMITED), £5 shares, £3 per share paid; dividends paid last year, £10 per cent. The colliery is situated near Newport, in the county of Carmarthen.

TWO HUNDRED SHARES in the OKEHAMPTON MINING COMPANY (LIMITED), £3 shares, £1 per share paid. The mine is situated at Okehampton, in the county of Devon.

For price and particulars, apply to Mr. CHARLES E. PALEY, Solicitor, No. 75, Petergate, York.

COUNTY OF WICKLOW.

TO BE LET, on such terms as may be agreed upon, the

GLENMALUR LEAD MINE,

In the townland of BALLINAFUNCHOGE, barony of BALLINACOR NORTH, and county of WICKLOW.

The mine is situate on the east side of the valley of Glenmalur, about eight miles from the town of Rathdrum, in a mineralised district of great promise. It has been worked for a considerable time up to a recent period, and was very productive. A large water-wheel, connected with a pumping apparatus, is at present employed keeping the workings clear of water. A railway is laid through, and in the adit level. Abundant supply of water power is available from the Avonbeg River adjoining, and other sources. Timber for use of the mine can be obtained on advantageous terms on the grounds. Houses suitable for the superintendents and workmen, offices, and workshops, are on the premises, and land can be given for any further accommodation that may be necessary.

Parties desirous of proposing for the mine can obtain particulars, as to its extent, state, and conditions on which it will be let, on application to JOHN HILL, Esq., Civil Engineer, Ennis.

Proposals will be received by Messrs. G. and R. K. JOHNSTON, Dundalk.

Dundalk, 20th of August, 1867.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the EAST WHEAL ELLEN MINING COMPANY.—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN and PROVE THEIR SEVERAL DEBTS or CLAIMS at the Registrar's Office, Truro, on Friday, the 30th day of August instant, at Eleven o'clock in the forenoon, or in default thereof they will be excluded from the benefit of any distribution made before such proof, and for the purpose of such proof they are either to attend in person, or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits of their several debts or claims to the Registrar of the Court, at Truro, such affidavits being sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the superior Courts lawfully authorised to take and receive affidavits and affirmations.

WM. MICHELL, Registrar of the above-named Court, Truro, Cornwall.

Dated Registrar's Office, Truro, August 21, 1867.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL HARTLEY MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Monday, the 2d day of September next, at Twelve o'clock at noon, at WHEAL HARTLEY MINE, in the parish of Gwinear, within the said Stannaries, either together or in lots, the MINE SETT or GRANT of the said company, and the undermentioned MINING MACHINERY and MATERIALS, namely:—

ONE STEAM PUMPING ENGINE, 40-in., 9 ft. stroke, equal beam, with rod (almost new), boiler and fittings, capstan and shears.

The materials may be inspected at any time prior to the sale, on application to Mr. WILLIAM IBBOTT, in charge thereof.

HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.

Dated Registrar's Office, Truro, August 21, 1867.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the HALLENBEAGLE MINING COMPANY.—TO BE SOLD, BY PUBLIC AUCTION, at and upon the Hallenbeagle Mine, in the parish of Kenwyn, in the county of Cornwall, under the direction of the Registrar of this Court, on Monday, the 9th day of September next, at Twelve o'clock at noon, subject to such conditions as shall be then and there produced, in One or several Lots, as may be then and there determined on, the undermentioned MACHINERY, PITWORK, MATERIALS, and OTHER EFFECTS, viz.:—

ONE 60 in. ENGINE, equal beam, with THREE BOILERS, about 10 tons each, and 2 balance bobs.

ONE 22 in. STEAM WHIM ENGINE, with ONE BOILER, about 9 tons, with capstan and crusher attached, complete.

A 6 in. plunger pole; stuffing box and gland; H piece and door piece, and 2 7 in. pumps; 58 fms. of 9 in., 50 fms. of 15 in., and 21 fms. of 8 in. pumps; 5 11 in. 9 ft. pumps; 9 13 in. pumps and 8 7 in. pumps; 2 9 in., 1 15 in., and 1 10 in. H pieces; 2 9 in., 1 15 in., 1 10 in., 2 14 in., and 1 8 in. door pieces; 2 9 in. and 1 15 in. plunger, pole case; stuffing box and gland; 2 10 in. and 1 13 in. plunger poles; 1 11 in. pole case; stuffing box and gland; 1 13 in. stuffing box and gland; 1 15 in. 6 ft., 1 14 in. 6 ft., 1 8 in. 8 ft., 1 10 in. 6 ft., 1 8 in. 6 ft., and 1 14 in. windbores; 1 14 in., 1 8 in. 12 ft., 1 8 in., and 1 12 in. 12 ft. working barrels; 106 fms. 13 in. main rods, with staples and glands; 26 fms. 2 in., 14 fms. 1½ in., and 20 fms. 1¼ in. bucket rods; 20 fms. 8 in. rods, with strapping plates and bolts; 80 fms. 6 in. rods; 106 fms. iron stave ladders; 106 fathoms knocker line and knocker; 120 fms. 9 in. capstan rope; shears and shieves; 5 shears, with sheives, complete; 46 2 ft. shieves, with stands, and about 150 fms. 2 in. round rods, with balance bob, complete; shears, with shieve; 77 2 ft. shieves and stands; 8 4 ft., 1 3 ft., 1 5 ft., and 1 6 ft. shieves; landing wagons; tramroad and bridge rails; steam whim kibbles; 7 shaft rolls; small crab winch; 1 2 ft. and 3 14 in. matchings; 1 8 in. turnpipe; shaft gig; about 70 fms. wood launders and stands; 3 horse whims; 2 shaft tackles; 4 whim kibbles; wood shed; 8 arm capstan; hand and other barrows; 7 wood dressing sheds and floors; beams, scales, and weights; 5 washing hutches and plates; 9 jigging hutches; 8 sieves and frames; about 4 tons of ⅝ in. fire whim chain; balance bob sword; 2 pairs of 18 in. yokes; pair of dandy wheels; screw stocks, plates, and taps; grinding stone and stand; 10 riddles; 1 brass bell; about 1 cwt. of anti-friction grease; vice; 2 iron blocks; clack seating; brass spiles and sheds and sampling iron; 2 sawpit frames; jack and slide screws; smiths' crane; 2 pairs of bellows; 2 anvils; mandrill; smiths' and miners' tools; staples and glands; flange bolts; steel borers; roll of pump bucket leather; 1 coil of knocker line, 1 coil packing rope, and 1 coil of ratling line; about 2 cwts. of tallow; oil; nails, &c.; about 1 cwt. of blister and cast steel; shovels; winze; kibble; brass seatings; old brass, copper, and sheet lead; about 3 cwts. of powder; old castings; a quantity of new and old iron; new and old timber; candles; safety fuse; and a quantity of halvans. Together with the account house and sampling house furniture, and a variety of other materials and effects in general use in mines.

For further particulars, or to view the materials, apply to Mr. W. SLEEMAN, the officer of the Court, at the mine. JOSEPH ROBERTS, Truro

(Agent for Messrs. R. W. Childs and Batten, solicitors, 25, Coleman-street, London).

Dated Truro, 21st August, 1867.

SALE BY AUCTION, AT

REGENT IRONWORKS, BILSTON.

MR. J. GETTINGS has received instruction from the trustees of Messrs. A. BEARD and SONS, and T. S. SMEETH and Co., TO SELL the whole of their LOOSE STOCK and WORKING MATERIALS, on Monday and Tuesday, the 19th and 20th, and on Monday, the 26th August.

The STOCK consists of 190 tons of first-class PIG-IRON; 500 tons of NEW and OLD CASTINGS, WROUGHT and SCRAP IRON, chilled and grained ROLLS, bar and billet ROLLS; large LATHE, with speeds, poppets, &c.; TWO small direct-action ENGINES; CIRCULAR SHEARS; 150 tons FLOOR PLATES, scales and weights; AVERY'S WEIGHING MACHINE.

Puddlers' and millmen's tools, blacksmiths' tools, bellows, anvils, quantity of steel, bull dog and tap cinder, calcined pottery, mine, fire-bricks, and clay.

About 10 tons of hot and cold neck GREASE; about 20 tons of best and common OILS; quantity of Russian TALLOW; 6 in., 4½ in., and 3 in. WAGONS, CARTS, and TROLLEYS; 14 WOOD and IRON CANAL BOATS; PUDDLING MACHINES.

The whole of the OFFICE FURNITURE, FIRE-PROOF SAFES, and a large quantity of sundries.

Sale to commence at Eleven o'clock each day, to the minute.

Catalogues may be had on and after Tuesday, 13th inst., from the Auctioneer, Albert Cottage, Bilston; and from Messrs. BROWN and FELLOWS, Solicitors, Bilston; from Messrs. DUIGNAN, LEWIS, and LEWIS, Solicitors, Walsall; and Mr. G. T. GREEN, Accountant, 19, Temple-street, Birmingham.

Landed Estates Court, Ireland.

COUNTY OF CORK.

In the Matter of the Estate of JAMES SHIELDS, assignee of THOMAS SAUNDERS CAVE, owner; THOMAS SAUNDERS CAVE, owner; and JOHN FLATHER, an incumbrancer; petitioners.

TO BE SOLD, before the Honourable Judge Dobbs, on Friday, the 8th day of November, 1867, at the hour of Twelve o'clock at noon, in the Landed Estates Court, Dublin, in One Lot, the following LAND and PREMISES (late the Audley Estate), held in fee simple, and producing the following nett annual incomes or value, all situate in the Barony of Carberry, and county of Cork.

Name of Townland.	Contents, statute measure.	Gross rents, or value.	Tithe rent charge.	Nett profit rent.
Cooragurteen	291A. 1R. 32P.	£ 87 3 2	£ 2 16 7½	£ 84 6 6½
Gurteenroe	234 3 26	49 7 2	2 2 6	47 4 8
Berryconnell	530 2 17	165 7 2	4 1 6½	161 5 7½
Clashmore	228 2 30	35 0 0	1 1 0	33 19 0
Cappanacallee	228 0 14	85 4 7	5 5 0	79 19 7
Stoake	247 3 38	100 14 0	5 1 9½	95 12 2½
Ballycummisk	191 2 39	224 5 0	6 16 6½	217 8 5½
do., royalty of mine	—	150 0 0	—	150 0 0
Rossbrin	276 1 20	163 13 5	11 19 1½	151 14 3½
Island	0 0 20	—	—	—
Cappaghglass	426 3 26	356 14 3	16 1 3	340 13 0
do., royalty of mine	—	90 0 0	—	90 0 0
Filemuck	378 2 19	148 9 10	12 17 7½	135 12 2½
Cushleena Island	0 1 11	—	—	—
Horse Island	154 1 15	167 15 8	9 6 0	158 9 8
Total	3190 0 27	£1823 14 3	£77 9 0	£1746 5 3

For Mines and Minerals, see Rentals.

Also the FEE SIMPLE of all MINES and MINERALS and SLATE QUARRIES to be found in and upon the lands of English Island, Ardagh East, Lislinane, otherwise Reavilleen, Castlehaven, Flea Island, Horse Island and Blackrock, Farrandeligan, Glasheenaulin, Lickowen, Gortacrossig, Tochead, North Reen, South Reen, Cooragurteen, Gurteenroe, Derryconnell, Clashmore, Cappaghnacallee, Stouke, Ballycummisk, Rossbrin, Cappaghglass, Filemuck, Horse Island, otherwise Island of Mullen, Lackereagh, and Raheenroe, situate respectively in the baronies of East and West Carberry, and county of Cork.

Proposals for the purchase of the foregoing will be received by the solicitor having carriage of the sale up to the 21st day of October next, and submitted to the Judge for his approval. GEORGE T. HOPKINS, Chief Clerk.

Dated this 5th day of July, 1867.

For rentals, and further particulars apply at the Landed Estates Court, Dublin; to Messrs. JOSEPH and H. T. LOVEGROVE, Solicitors, Gloucester; Messrs. HARRISONS, Solicitors, 5, Walbrook, London; Messrs. EWBANK and PARTINGTON, Solicitors, 7, South-square, Gray's Inn, London; Messrs. GALLOWAY and CONNOR, Solicitors, 55, Upper Sackville-street, Dublin; Messrs. HALLOWES and HAMILTON, 34, Westland-row, Dublin; WILLIAM SULLIVAN, Solicitor, 8, Inns Quay, Dublin; and to M'CARTHY DOWNING, Solicitor, having carriage of the sale, Skibbereen, county Cork, and 8, Inns Quay, Dublin.

DESCRIPTIVE PARTICULARS.

The estate affords a good opportunity for a large investment, having regard both to the value of the lands and to the very valuable mines and slate quarries thereon.

The lands adjoin each other, and are situate about one mile from the village of Ballydehob, and three from that of Skull, in both of which fairs and markets are held. They are about eight miles from the important town of Skibbereen, to which the railway in course of construction from the town of Bandon is now opened to Dunmanway, being half the distance.

All the tenancies on the estate (except that on the Ballycummisk Mine) are from year to year.

There is a large, handsome residence on the lands of Cappaghglass, known as Rossbrin Manor, occupied by the family of the present owner for the past 12 yrs. It is finely situated, facing Filemuck Harbour, commanding an extensive sea view.

Reports as to the valuable copper mines on the estate have been made under orders of the Court—one by Mr. English, in the year 1853, and another by Mr. Lisabé, in the year 1865. Both will be found in the printed rentals for sale.

Large sums have been expended by the present owner within the last 10 years in the purchase of machinery, now at the said mines, and generally in connection therewith.

CUMBERLAND.

VALUABLE ESTATES AND ROYALTY FOR SALE.

MR. PORTER KITCHIN WILL SELL, BY AUCTION, at the Black Lion Hotel, Whitehaven, in the county of Cumberland, on Thursday, the 12th day of September, 1867, at Three o'clock in the afternoon, together or in two Lots—

LOT 1.—The FREEHOLD ESTATES called HOLEBECK and RATTEN ROW, situated in the parish of Arlecdon, in the county of Cumberland, consisting of a suitable DWELLING HOUSE, TWO COTTAGES, FARM BUILDINGS, and 142A. 1R. 0P. of LAND, more or less, let from year to year to Mr. William Crosthwaite, at the low rental of £150 per annum. This lot will be sold subject to a reservation of the minerals and all necessary powers to work the same.

LOT 2.—The MINES and MINERALS under 104A. 2R. 33P. of the above estates, and also under 10A. 3R. 0P. adjoining and formerly forming part of the same estates. This lot is subject to a mining lease for 21 years from the 11th November, 1853, at a dead rent of £100 per annum, and a royalty rent of 1s. 9d. per ton of 30 cwts. of iron ore—the dead rent merging into the royalty rent.

The estates are very compact, and the farm-buildings are within five minutes walk of the Frizington Station of the Whitehaven, Cleator, and Egremont Railway; and the River Ehen, which abounds with fish, forms part of the south-east boundary.

The views from some parts of the estate are very fine, commanding the Vale of Ennerdale and the mountain ranges of Ennerdale and Kinniside, and there are several sites admirably adapted for building purposes.

The royalty is believed to be a very valuable one, and is expected to contain large deposits of iron ore, the iron ore mines on the adjoining estates having very productive, and the famed Parkside High House and Birks Mines being situate near the boundary of the royalty.

The tenant will show the estate, and printed particulars and conditions of sale, with a plan of the estates and royalty, may be obtained on application to the auctioneer, or to Mr. M'KELVIE, solicitor, Whitehaven.

Whitehaven, 1st August, 1867.

ALSTON, CUMBERLAND.

FOR SALE, BY PRIVATE BARGAIN, the WHOLE INTEREST of the present shareholders in

BIRCHY BANK MINE.

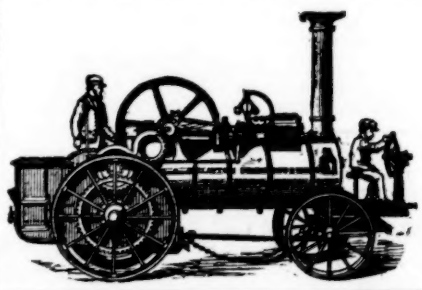
The take extends in length 600 fathoms adjoining the Rodderupfell Mining Company's ground on the west, and in breadth 20 fathoms north of the north vein, and 20 fathoms south of the south vein.

Application to be made to Mr. JOHN PEART, Mining Agent, Alston; or J. H. INGLEDEW, Esq., Solicitor, Dean-street, Newcastle-on-Tyne.—July 29.

CLAYTON, SHUTTLEWORTH, AND CO.,

LINCOLN,

And 78, LOMBARD STREET, LONDON.



Illustrated Catalogues containing the latest revised Price Lists and particulars of

PORTABLE AND STATIONARY STEAM ENGINES

(from 4 to 40-horse power), Thrashing, Grinding, Pumping, Sawing Machinery, &c., will be forwarded free on application as above.

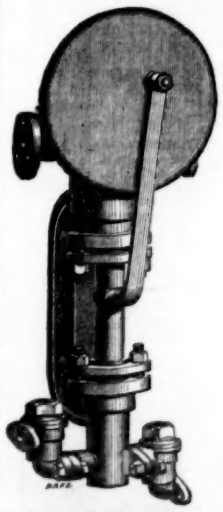
TRACTION ENGINES for COMMON ROADS, and for STEAM CULTIVATION

NOTE.—Nearly 8000 Engines and 6000 Thrashing Machines have been made by this firm within the last few years.

THE NEW PATENT INJECTOR,

FOR FEEDING BOILERS AND RAISING WATER FOR OTHER PURPOSES.

BY ROYAL LETTERS PATENT, No. 1539, DATED 2d JUNE, 1866.



FRONT ELEVATION.

PRICES, DELIVERED IN LONDON:—

Size.	Ram. in.	Stroke. in.	Approx. horse-power boiler supplied.	Approximate gallons thrown per hour. At 100 rev.	150 rev.	200 rev. p. min.	Price.
No. 4	1⅛	3	15	115	172	230	£10 10
5	1⅞	3	22	180	270	360	12 12
6	1⅞	4	30	240	360	480	14 14
7	2¼	4	40	345	517	690	17 0
8	2¼	5½	55	475	712	950	19 10
9	2⅛	5½	75	585	877	1170	22 10
10	2½	6¾	90	720	1080	1440	25 10
11	2¾	6¾	110	870	1305	1740	28 10
12	2¾	8	120	1030	1545	2060	31 10
*14	3	8	230	2450	3675	—	40 0
*16	3¼	8	460	4900	7350	—	55 0

* The two last are double-acting.

Steam Regulator Valves, and also Check Valves, specially made to suit these Engines, can be supplied.

Terms Nett Cash on Delivery.

Each Injector is guaranteed to work efficiently, and any one failing to give satisfaction may be returned.

A CIRCULAR, WITH FULL EXPLANATION AND COMPARISONS, WILL BE SENT ON APPLICATION.

BROWN, WILSON, AND CO.

No. 80, CANNON STREET, E.C.; AND VAUXHALL IRONWORKS, S., LONDON.

SPECIAL NOTICE—CLAYTON, SHUTTLEWORTH, & CO.,

At the Bury Meeting of the Royal Agricultural Society of England, received the following Awards—

EVERY FIRST PRIZE FOR FIXED AND PORTABLE STEAM ENGINES,

And they were also awarded the Prize of £15 for their

PORTABLE FINISHING THRASHING MACHINE.

CLAYTON, SHUTTLEWORTH, AND CO., LINCOLN, AND 78, LOMBARD STREET, LONDON.

135

FIG. 1.

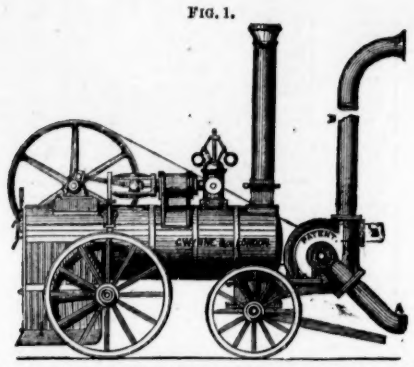


FIG. 1.—PATENT PORTABLE PUMPING ENGINE, WITH PUMP FIXED TO ENGINE; made in all sizes.

FIG. 2.

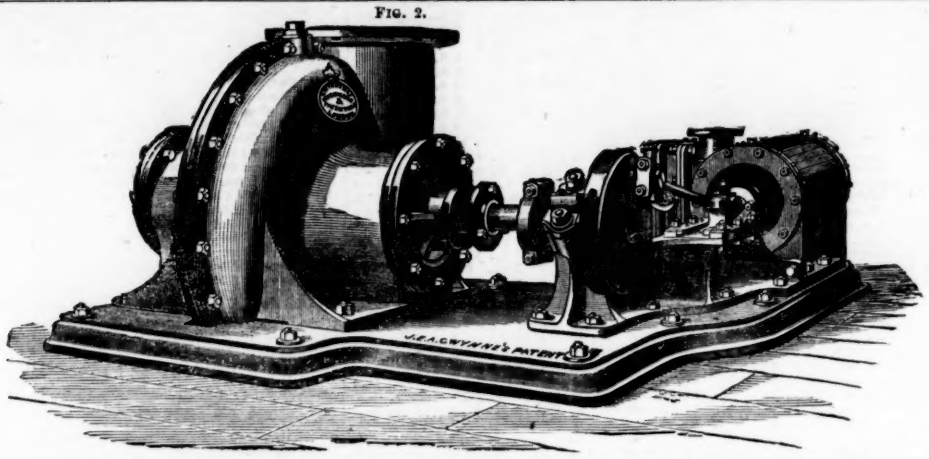


FIG. 2.—PATENT PUMPING ENGINE, FOR USE ON BOARD SHIP, COAL PITS, MINES, QUARRIES, DOCKS, CANALS, HARBOURS, &c.; FOR SURFACE CONDENSERS, PROPELLING, &c.

GWYNNE AND CO.'S
PATENT DOUBLE-ACTION CENTRIFUGAL PUMPING MACHINERY,

FOR IRRIGATION, DRAINAGE, MANUFACTURING, AND OTHER USES.

GWYNNE AND CO. have erected the largest pumping machinery in the world; they have also erected more of all powers than any other firm in existence, and are prepared to contract that their machinery will do more work with less cost of coal than any other makers.

This Machinery has received the highest commendation; and thousands of Engineers, Manufacturers, and others using it, can be referred to in all parts of the world.

GWYNNE AND CO. HAVE RECEIVED THE FOLLOWING PRIZE MEDALS:—

PRIZE MEDAL 1862 LONDON · PRIZE MEDAL 1865 COLOGNE · PRIZE MEDAL 1855 NEW YORK · GOLD MEDAL 1863 ANTWERP · SILVER MEDAL 1859 ROUEN · SILVER MEDAL 1861 NANTES · SILVER MEDAL 1864 LOUVAIN · FIRST PRIZE 1865 CALCUTTA · 1ST PRIZE MEDAL 1867 PARIS

FOR MANUFACTURING PURPOSES

They are largely in use; among others, by Paper Makers, Brewers, Distillers, Dyers, Chemists, Tanners, Sugar Refiners, Bleachers, Calico Printers, Carpet Manufacturers, Engineers and Iron Founders, Woollen Cloth and Blanket Manufacturers, Oil Refineries, Soap, Alkali, Salt, Starch, and Candle Works, Water Works, Lime and Cement Works, Quarries, Coal and Iron Mines, Sheep Washing, Public Baths, Cotton, Flax, Match, Felt, Oil and other Mills, &c. Numerous references to all the foregoing can be had on application.

FOR DRAINAGE WORKS

GWYNNE and Co.'s Patent Centrifugal Pumps are in very extensive use, and some of the largest tracts of land in this country, and in Holland, Italy, Austria, France, Belgium, Denmark, Demerara, &c., are kept dry by their use.

FOR IRRIGATION WORKS

They have been selected for very extensive works in Egypt, Turkey, Spain, France, Belgium, India, Ceylon, Java, China, Australia, Porto Rico, &c., &c.

FOR EMPTYING DRY OR GRAVING DOCKS

They are quite unequalled, and will be found to excel all other arrangements, discharging a body of water in proportion to the lift, the speed of engines and power remaining the same; they will empty a dock in a shorter time and with much less power than is requisite with any other system. The first cost of machinery, the erection, and the foundations and brickwork necessary, are much less expensive than with any other arrangement, and the cost of keeping in thorough working order is merely nominal.

ESTIMATES FOR ANY SITUATION FORWARDED UPON APPLICATION. LIST OF PRICES FREE, ON RECEIPT OF TWO STAMPS.

GWYNNE AND CO., HYDRAULIC AND MECHANICAL ENGINEERS,
ESSEX STREET WORKS, STRAND, LONDON, W.C.

136

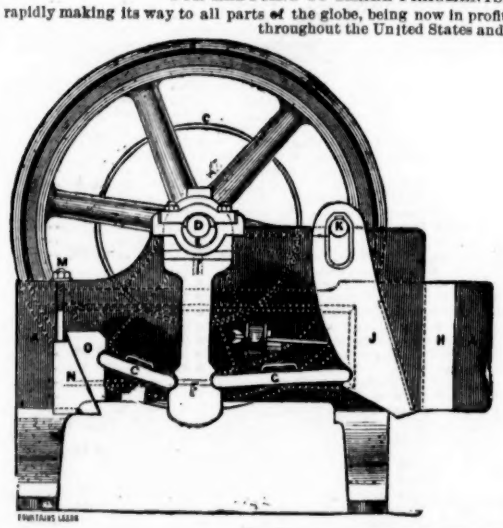
IMMENSE SAVING OF LABOUR.

TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, McADAM ROAD MAKERS, &c., &c.

BLAKE'S PATENT STONE BREAKER,
OR ORE CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—



The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.
For the Parys Mining Company, JAMES WILLIAMS.
H. R. Marsden, Esq.

Ecton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaw s about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.
H. R. Marsden, Esq. — THOS. GOLDSWORTHY & SONS.

Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent. WILLIAM HUNT.

Welsh Gold Mining Company, Dolgelly,—The stone breaker does its work admirably, crushing the hardest stones and quartz. WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes, for fine road metal, free from dust. Messrs. ORD and MADDISON, Stone and Lime Merchants, Darlington.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton. JOHN LANCASTER.

Ovoca, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour. WM. G. ROBERTS.

General Frémont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or $75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered third machine for this estate. SILAS WILLIAMS.

For circulars and testimonials, apply to—

H. R. MARSDEN, SOHO FOUNDRY,
MEADOW LANE, LEEDS,
ONLY MAKER IN THE UNITED KINGDOM.

137

PARIS EXHIBITION, CLASS 52.

MEDAILLE D'HONNEUR.

APPLEBY BROTHERS,
EMERSON STREET, SOUTHWARK,
LONDON, S.E.,

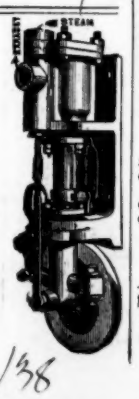
Engineers and Patentees of STEAM CRANES, DONKEY PUMPS, &c.,

BARROW LIFT, HOISTING, OR DECK ENGINES.

PATENT DONKEY PUMPS.

Ram	1½ in.	2 in.	2¼ in.	2½ in.	2¾ in.	3 in.	3¼ in.	3½ in.	4 in.
*Gall. per hour	230	400	680	850	1200	1500	2100	2500	3800
Approx. H.P.	15	25	40	50	80	95	130	150	230
Price	£10 5	£12 10	£15	£18	£21	£24	£ 28	£30	£35

* Calculated at 200 strokes per minute.



138

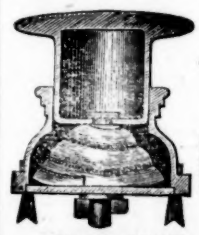
BICKFORD'S PATENT SAFETY FUSE

Obtained the PRIZE MEDALS at the ROYAL EXHIBITION of 1851; at the INTERNATIONAL EXHIBITION of 1862, in London; at the IMPERIAL EXPOSITION held in Paris, in 1855; and at the INTERNATIONAL EXHIBITION, in Dublin, 1865.

BICKFORD, SMITH, AND CO., of TUCKINGMILL, CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—
EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.

139

THOMAS TURTON AND SONS,



MANUFACTURERS OF
CAST STEEL for PUNCHES, TAPS, and DIES, TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT and CRANK AXLES, SHAFTS and FORGINGS of EVERY DESCRIPTION.

DOUBLE SHEAR STEEL, BLISTER STEEL, SPRING STEEL, GERMAN STEEL — FILES MARKED T. TURTON. EDGE TOOLS MARKED WM. GREAVES & SON.

Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.

SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.,
Where the largest stock of steel, files, tools, &c., may be selected from.

140

THOS PRENTICE & Co. — EMIT NO SMOKE — PATENT SAFETY GUN COTTON CARTRIDGES & CHARGES — MAKE LITTLE RECOIL — 82. GRACECHURCH ST E.C.

GUN COTTON

Is the safest and STRONGEST EXPLOSIVE For every description of MINING AND QUARRYING WORK.

A charge of any given size exerts six times the explosive force of gunpowder. The enormous power confined in a short length at the bottom of the hole allows of a much greater amount of work being placed before each blast, saving considerably in the labour of drilling.

Charges are made of every diameter required, the length varying with the diameter. Any number may be placed in a hole. Each charge is fully equal to one-fifth of a pound of powder.

MANUFACTURED BY
THOMAS PRENTICE AND CO., 82, GRACECHURCH STREET, LONDON.
WORKS, STOWMARKET.
LONDON AGENT.—Mr. THORNE.

104

THE NEWCASTLE CHRONICLE AND NORTHERN COUNTIES ADVERTISER. (ESTABLISHED 1764.)
Offices, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields; 195, High-street, Sunderland.

142

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500	Alderley Edge, c, Cheshire*	10 0 0	—		8 17 8	0 5 0	July 1867
200	Botallack, t, c, St. Just	91 5 0	180		488 15 0	5 0 0	May 1866
4000	Brookwood, l	1 11 0	—		0 5 0	0 2 6	Sept. 1866
1000	Bronfloyd, l, Cardigan*	12 0 0	—		8 7 0	0 6 0	Aug. 1867
6400	Cashwell, l, Cumberland*	2 10 0	—		0 1 6	0 1 6	Aug. 1866
916	Cargoll, s-l, Newlyn	15 5 7	—	12 14	13 15 0	1 0 0	Feb. 1866
1867	Cwm Erfin, l, Cardiganshire*	7 10 0	—		23 18 0	1 0 0	June 1867
128	Cwmystwith, l, Cardiganshire	60 0 0	—		379 10 0	3 0 0	April 1867
280	Derwent Mines, s-l, Durham	300 0 0	—		174 10 0	5 0 0	June 1867
1024	Devon Gt. Consols, c, Tavistock†	1 0 0	410	400 420	1067 0 0	7 0 0	July 1867
358	Dolcoath, c, t, Camborne	128 17 6	—		831 10 0	3 0 0	Aug. 1867
6144	East Caradon, c, St. Cleer†	2 14 6	5⅛	4⅞ 5⅛	14 11 6	0 2 0	July 1867
300	East Darren, l, Cardiganshire	32 0 0	—		146 10 0	2 0 0	July 1867
128	East Pool, t, c, Pool, Illogan	24 5 0	—		407 10 0	5 0 0	July 1867
5000	East Rosewarne, c, t, Gwinear	2 15 0	—		0 10 6	0 1 6	Jan. 1866
1906	East Wheal Lovell, t, Wendron	3 9 0	7	6¼ 6½	3 1 6	0 6 8	Aug. 1867
2800	Foxdale, l, Isle of Man*	25 0 0	—		70 10 0	0 10 0	June 1867
5000	Frank Mills, l, Christow	3 18 6	—		3 5 6	0 5 0	Feb. 1866
5000	Great Laxey, l, Isle of Man*	4 0 0	18	18 19	6 15 0	0 10 0	June 1867
5908	Great Wheal Vor, t, c, Helston†	40 0 0	18	16½ 17½	11 13 0	0 7 6	June 1867
1024	Herodsfoot, l, near Liskeard†	8 10 0	33	35 37	42 0 0	1 10 0	June 1867
6000	Hingston Down, c†	5 10 6	—		0 10 0	0 5 0	April 1866
400	Lisburne, l, Cardiganshire	18 15 0	—		492 10 0	3 0 0	May 1867
9000	Marke Valley, c, Caradon	4 10 6	5	4⅞ 5⅛	3 0	0 3 0	July 1867
3000	Minera Boundary, l, Wrexham*	1 0 0	—		0 13 0	0 3 0	Mar. 1866
1800	Minera Mining Co. l, Wrexham*	25 0 0	180	170 180	218 18 0	6 5 0	Aug. 1867
20000	Mining Co. of Ireland, c, l, cl.	7 0 0	—	17½ 18	—	0 5 7	Jan. 1867
40000	Mwyndy Iron Ore*†	3 5 0	—		0 6 6	0 2 6	Mar. 1866
200	Parys Mines, c, Anglesey*	50 0 0	—		157 10 0	5 0 0	Jan. 1866
12800	Prince of Wales t, Calstock	0 12 6	52s.	44s. 46s.	0 2 6	0 2 6	Aug. 1867
6000	Prosper United, t, c, St. Hilary	8 14 0	—		0 5 0	0 5 0	Feb. 1867
1120	Providence, t, Uny Lelant†	10 6 7	28	27 29	82 17 6	0 10 0	May 1867
512	South Caradon, c, St. Cleer†	1 5 0	360	360 370	562 10 0	6 0 0	July 1867
6000	South Darren, l*	3 6 6	—		0 7 1	0 1 6	July 1867
508	Sumner Hill, Mold	3 13 6	—		0 10 0	0 5 0	July 1867
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	12½	12 13	18 11 0	0 5 0	Jan. 1867
2000	Trumpet Cons., t, Helston	11 10 0	—		11 5 0	0 5 0	June 1867
3000	W. Chiverton, l, Perranzabuloe†	10 0 0	68	68 69	21 7 6	2 0 0	Aug. 1867
400	West Wheal Seton, c, Camborne†	47 10 0	150	145 150	476 10 0	3 10 0	Aug. 1867
512	Wheal Basset, c, Illogan†	5 2 6	70	65 70	625 0 0	2 0 0	Aug. 1867
1024	Wheal Friendship, c, Tavistock	20 0 0	—		300 10 0	0 10 0	Nov. 1866
4295	Wheal Kitty, t, St. Agnes	5 4 6	—		3 1 0	0 2 0	Feb. 1867
1024	Wheal Mary Ann, l, Menheniot†	8 0 0	15	15 16	61 15 0	0 15 0	June 1867
2000	Wheal Rose, c, Scorrier	—	—		1 0 0	0 10 0	Feb. 1866
396	Wheal Seton, t, c, Camborne	58 10 0	110	105 110	246 15 0	2 10 0	Aug. 1867
1040	Wheal Trelawny, s-l, Liskeard†	5 17 0	9		54 14 6	0 4 0	June 1867
3000	Whitewell Lead, Clitheroe*	0 5 0	—		0 10 0	0 10 0	July 1867
17000	Wicklow, c, t, Wicklow	2 10 0	—	20⅛	46 15 0	1 0 0	April, 1867

FOREIGN DIVIDEND MINES.

20000	Australian, c, South Australia†‡	7 7 6	—		0 1 0		Aug. 1867
15000	Cape Copper Mining*†	7 0 0	8	6½ 7	2 12 6	0 10 0	April 1866
100000	Don Pedro No. del Rey, Brazil*†‡	0 14 0	2¼	2¼ 2⅜	0 4 3	0 1 6	June 1867
25000	Fortuna, l, Spain*†	2 0 0	—		1 5 4	0 2 0	Oct. 1867
20000	Gen. Mining Assoc., Nova Scotia†	20 0 0	18		23 10 0	0 15 0	June 1867
10000	Gonnesa, l,* [5000 £5 pd., 5000 £4 pd.]	—	—		10 per cent.		July 1867
15000	Linares, t, Spain*†	3 0 0	1		11 6 4	0 5 0	Jan. 1865
50000	Panulcillo, c*†	3 0 0	2½		10 per cent.		Yearly.
6000	Peel River Land and Mineral*†	—	—		—	—	
30000	Pestarena, g*†	2 10 0	2¾	2½ 2¾	0 2 6	0 2 6	Mar. 1867
10000	Pontgibaud, s-l, France†	20 0 0	—		4 14 3	0 11 0	June 1867
100000	Port Phillip, g, Clunes†	1 0 0	1⅛	1 1⅛	0 17 6	0 1 0	Aug. 1867
120000	Scottish Australian Mining Co.†	1 0 0	1⅛	⅞ 1⅛	7⅛ per cent.		Mar. 1867
11000	St. John del Rey, Brazil*†	15 0 0	58	60 62	77 5 0	4 10 0	June 1867
50000	Victoria (London) [25000 £1 pd., 25000 12s. 6d. pd.]				0 9 0	0 1 0	Jan. 1866
40000	West Canada Mining Company*	1 0 0	—		0 19 6	0 2 6	May 1866

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
25000	Alamillos, l, Spain*†	2 0 0	1		Fully pd.
100000	Anglo-Brazilian, g*†	0 10 0	¾	⅛ ⅝	Nov. 1866
12500	Anglo-Italian, g*†	0 5 0	—		May 1867
40000	Brittany Silver-Lead Mines, France* [15750 18s. pd.]	—	—		
2464	Burra Burra, c, South Australia‡	5 0 0	31½		
25000	Capula, s, Mexico*†	1 12 0	—		Aug. 1866
30000	Chontales, g, s, Nicaragua*†	4 0 0	4¾	5⅛ 5⅜	June 1867
12000	Cobre Copper Company, c, Cuba†‡	43 10 0	—		May 1867
10000	Copiapo Mining Company, Chili†‡	16 10 0	—		
10000	Copiapo Smelting, Chili*	10 0 0	—		April 1866
300	Copper Miners' Co. of South Australia* [150 £100 pd., 150 £70 pd.]				Nov. 1866
15000	El Chico Silver Mining and Reduction Company*	5 0 0	—		Nov. 1866
8000	English and Canadian Mining Company*	5 0 0	—		Fully pd.
40000	Fortune Copper Mining Co. of Western Australia	2 0 0	—		Fully pd.
50000	Frontino and Bolivia, g, New Granada*†	1 15 0	9s.	7s. 9s.	June 1867
10000	Great Barrier Land, Mining, &c., New Zealand	5 0 0	—		Fully pd.
80000	Great Northern, c, South Australia†	1 11 6	—		Sept. 1862
68000	Kapunda Mining Co., Australia†‡	1 0 0	⅜		
7927	Lusitanian (Portugal)†‡	3 0 0	—		
83090	Mariquita	0 12 6	—		Jan. 1867
12500	Nerbudda Coal and Iron*† [6000 £5 pd., 6500 £4 pd.]	—	—		Aug. 1865
51000	New Quebrada, c, Venezuela*†	3 10 0	—		
50000	Nova Scotia Land and Gold*	1 15 0	—		Sept. 1865
15000	Otea, c, New Zealand*	2 0 0	—		Fully pd.
10178	Rhenish Consolidated, l [6000 £5 pd., 4178 £2 10s. pd.]	—	—		May 1866
100000	Rossa Grande, g, Brazil*†	0 10 0	½	¼ ½	June 1867
15000	San Pedro del Monte, s, Mexico*	4 0 0	—		Sept. 1866
10000	San Roque, l, Spain	5 0 0	—		Fully pd.
43174	United Mexican, s, Mexico†‡	28 5 0	2	1½ 2	
10000	Vancouver, cl*†‡	6 0 0	—	2 3	
6000	Val Sassam, s, c, l*†	7 0 0	—		Jan. 1867
45000	Victor Emanuel, c, Italy*	1 0 0	—		Fully pd.
20000	Washoe, g†	5 0 0	—		Fully pd.
80000	Worthing, c, South Australia*†	1 0 0	⅝		Fully pd.
75000	Yorke Peninsula, South Australia	1 0 0	—		Fully pd.
45000	Yudanamutana, c, S. A.*†‡	3 0 0	1	¾ 1	Fully pd.

BANKS AND FINANCIAL COMPANIES.

Shares.	Banks.	Paid.	Last Pr.	Bus. done.
40000	Alliance*†	25 0 0	13⅛	13¼
40000	Australian Mort. Land and Finance†	5 0 0	5⅝	
30000	Australasia†	40 0 0	65	64 66
10000	Bank of Egypt†	25 0 0	—	
50000	Bank of New Zealand†	10 0 0	19	
25000	Bank of Otago*†	10 0 0	—	
20000	Bank of Victoria, Australia†	25 0 0	—	
20000	British North American†	50 0 0	—	
8915	Canada Company†	32 10 0	—	65 70
50000	Canadian Loan and Investment*†	2 10 0	—	
40000	Chartered Bank India, Australia, and China†	20 0 0	18⅝	
30000	Chartered Merc. of India, London and China†	25 0 0	30	
50000	City†	10 0 0	13	12¼ 12½
20000	Colonial†	25 0 0	—	38
40000	Company of African Merchants.*†	3 0 0	3¼	
200000	Consolidated Bank*†	10 0 0	—	4¾ 5
300000	Credit Foncier and Mobilier of England*†	9 0 0	3⅝	3¼ 3½
20000	East London*†	5 0 0	—	
30000	English, Scottish, & Aust., Chart.†	20 0 0	17½	
20000	English and Swedish*†	25 0 0	—	
20000	Imperial Bank*†	20 0 0	19	
202500	Imperial Ottoman†	10 0 0	9	8½ 9
300000	International Land Credit*†	6 0 0	—	
50000	London Chartered Bank of Australia†	20 0 0	—	
37500	London and County†	20 0 0	54	55 57
40000	London Financial Association*†	30 0 0	8	7 9
72000	London Joint-Stock†	15 0 0	38	37½ 38½
5000	London and River Plate*†	40 0 0	—	
20000	ditto ditto New, issued at 1½ prem.*†	10 0 0	—	11
20000	ditto ditto New*†	10 0 0	—	
10000	London and South-Western*	20 0 0	—	
5000	London and Venezuela*†	12 10 0	—	
50000	London and Westminster†	20 0 0	72	72 73
50000	Mercantile and Exchange*†	12 10 0	—	
10000	Merchant*†	25 0 0	—	
5000	ditto New*†	20 0 0	—	
17156	Metropolitan and Provincial*†	20 0 0	—	
5000	Midland*†	20 0 0	—	
20000	National of Australia†	4 0 0	—	
20000	National of Liverpool*†	15 0 0	—	
10000	National Provincial of England†	42 0 0	—	
55000	ditto ditto 2d and 3d issue†	12 0 0	—	
40000	National†	30 0 0	—	
50000	New South Wales†	20 0 0	—	
60000	Oriental Bank Corporation†	25 0 0	43	42½ 43½
27210	Provincial Banking Corporation*†	10 0 0	—	
20000	Provincial of Ireland†	25 0 0	87	86 88
10000	ditto ditto New†	10 0 0	—	
40000	Union of Australia†	25 0 0	48	48 50
10000	Union of Ireland*†	22 0 0	—	
80000	Union of London†	15 0 0	40	38 40

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
4000	Ballacorkish, I. of Man, l, c*	2 10 0	—		May 1867
3000	Bedford Unit., c, Tavistk.*	2 6 8	—		
1031	Bedol Aur, l, Holywell	1 12 0	—		May 1867
500	Billins, l, Flint	30 0 0	—		Fully pd.
1248	Boscaswell, t, c, St. Just	7 6 0	—		Dec. 1866
2500	Bosworthen and Penzance.	4 0 0	—		July 1867
5000	Bottle Hill, t, Plympton	1 14 6	—		June, 1866
1000	Blaendyffryn, s-l	5 0 0	—		
200	Brynford Hall, l, Flint	28 0 0	—		Jan. 1866
5000	Bryn Gwiog, l, Flint	0 18 0	—		June, 1864
1200	Bryn Gwyn, l, Mold*‡	9 0 0	—		
1000	Budnick Consols, c, t	—	½		
5094	Bwlch Consols, s-l	4 0 0	—		
6000	Bwadrain Consols, s-l	3 0 0	—		
30000	Caldbeck Fells, l, Cumber.*	1 10 0	—		Dec. 1866
1000	Camborne Consols, c	18 10 0	—		Feb. 1864
4600	Camborne Vn.&Wh.Frn., c	11 14 7	—		July 1867
11000	CapeCornwall, t, c* [8000 £2 10s. pd., 3000 10s. pd.]				Oct. 1866
914	Caradon Cons., c, St. Cleer	32 3 6	—		Feb. 1867
1000	Carn Brea, c, t, Illogan‡	28 0 0	14		May 1867
6000	Carn Camborne, c, Cambn.	2 2 0	—		July 1867
5000	Carnarvonshire, l*	4 0 0	—		Fully pd.
4005	Cardigan Cons.*	5 0 0	—		Fully pd.
600	Cardiganshire, l*	17 10 0	—		Sept. 1866
20000	Carysfort [3200 £2½ pd., 16800 £1⅜ pd.]				Mar. 1865
2500	Cefn Cilcen, l, Flint*	2 18 0	—		Aug. 1866
2500	Central Minera, l*	3 17 6	—		June 1867
16000	Central Snailbeach l*	1 0 0	—		Fully pd.
3000	Chiverton, l, Perranzabu.	9 7 6	7	7 7¼	May 1867
3000	Chiverton Moor, l, Perranz.	6 8 6	5⅛	4¾ 5	Aug. 1867
4000	Clara, Llywernog	2 16 6	—		May 1867
2880	Clifford Amalg., c, Gwen.‡	33 17 6	6⅝	7 7½	June 1867
256	Condurrow, c, t, Camborne‡	76 10 0	—		
50000	Connorree, c, sul, Wicklow*	1 0 0	—	13s.	Fully pd.
2450	Cook's Kitchen, c, Illogan‡	19 14 9	10		July, 1866
1024	Copper Hill, c, Redruth‡	12 10 0	—		June, 1866
6885	Cornish Clay and Tin	1 0 0	—		Fully pd.
1055	Craddock Moor, c, St.Cleer‡	12 6 0	—		May 1867
861	Crane, c, Camborne	33 9 6	—		Dec. 1866
12000	Crelake, c, Tavistock	3 12 0	1¼		June 1867
6000	Cuddra, t, St. Austell	5 0 0	—		Oct. 1866
35000	Dale, l, North Stafford	1 0 0	—		Fully pd.
4000	Devon Wheal Frances, c	1 5 9	—		Mar. 1867
1024	Dev. Wh. Lopes, Bickleigh.	18 10 0	—		Mar. 1867
12800	Drake Walls, t, Calstock‡	2 5 0	—		Dec. 1866
656	Ding Dong, t, Gulval‡	49 14 6	—		Dec. 1866
25000	Dundalk, Ireland, l*	0 15 0	—		Feb. 1867
3000	Dyfngwm, l, Wales	13 7 0	—		June, 1866
740	Eaglebrook, l*	19 15 0	—		July, 1866
512	East Basset, c, Redruth†‡	31 10 0	16	15 17½	July 1867
1000	East Basset and Grylls, t	3 5 0	—		July, 1865
6000	E. Bottle Hill, t, Plympton	0 9 6	—		May 1867
4096	East Brookwood, Holne	2 8 8	—		July, 1866
6000	E. Carn Brea, c, Redruth‡	3 15 0	2⅜	2¼ 2½	
4000	East Chiverton, l, Perranz.	2 14 3	—		July 1867
6000	E. Grenville, c, Camborne	3 6 6	2		Feb. 1867
4000	E. Gunnislake & S. Bed. c.	10 7 0	—		June 1867
6000	East Laxey, l, Isle of Man.	2 15 0	—		Dec. 1866
6000	East Neptune, c, Marazion.	—	—	4 4½	
3986	E. Providence, t, Uny Lel.	5 4 9	—		Aug. 1867
6000	East Snaefell, l, I. of Man*	2 0 0	—		Dec. 1864
5610	East Seton, c, Camborne	0 13 6	—		May 1867
9000	E. St. Just, t* [6000 £3 10s. pd., 3000 £1 10s. pd.]				Nov. 1866
256	East Tolgus, c, Redruth	96 0 0	—		April, 1866
1190	E. Wh. Agar, c, St. Cleer	12 17 0	—		Jan. 1865
5000	E. Wh. Rose Con., l, Per.*	2 0 0	1¾		
4000	E. Wh. Russell, Tavistock†	12 5 6	1¾	1½ 1¾	July 1867
6000	Fortescue Consols, c	0 12 6	—		
940	Fowey Con., c, Tywardreath‡	5 4 6	—		Feb. 1867
6000	Furze Hill Wood Con. Buckl.	1 16 0	—		Feb. 1866
10000	Fursdon, c* [5000 £1 10s.]	—	—		Mar. 1865
4096	Garlidna Unit., t, Wendron	5 7 7	—		Feb. 1866
4000	Gawton, c, Tavistock	3 10 6	—		May 1867
6000	Gen. Min. Co. for Ireland, c	5 10 0	—	2½	
40000	Glasgow Caradon c* [30000 £1 pd., 10000 10. pd.]				Sept. 1866
5700	Goginan, l,	12 10 0	—		April 1864
6144	Gonamena, c, St. Cleer	6 2 6	—		Aug. 1867
6000	Gothic, s-l, Cardigan*	2 10 0	4⅛		Fully pd.
486	Grambler and St. Aubyn†‡	71 0 0	—		Mar. 1867
10000	Great Cwmsymlog, s-l*	1 0 0	—		May, 1867
4096	Great Caradon, c, St. Ive	3 15 0	⅛		May 1867
3000	Great Chiverton, s-l*	1 0 0	—		May, 1867
3000	Gt. East Lovell, t, Helston	2 1 0	—		Nov. 1866
5000	Great Mona, l, Isle of Man*	4 0 0	—		June, 1867
5000	Great North Downs, c	6 13 0	3¾	4 4¼	Feb. 1867
12500	Gt.No.Laxey(Isle of Man)*	0 15 0	¾		July 1867
4800	Great Retallack, s-l, b	2 4 0	4⅞	4⅛ 4¾	July 1867
6000	Great South Chiverton, s-l.	1 7 6	—		Aug. 1867
6000	Gt. So. Tolgus, c, Redruth.	1 4 0	—		June 1867
3313	Great Wheal Baddern, t	7 17 6	—		June, 1863
1798	Gt. Wh. Fortune, t, Breage	29 5 6	—		July 1867
119	Great Work, t, Germoe	100 0 0	—		
10240	Gunnislake (Clitters'), t, c.	4 19 0	—		April 1867
6068	Gwydyr Park, l, Llanrwst	1 13 6	—		June 1867
6000	Hallenbeagle, c, Kenwyn	2 17 0	—		April 1867
6400	Harwood, l, Durham*	0 6 0	—		Sept. 1864
5000	Havan, l, Cardigan*	4 15 0	—		Mar. 1866
6000	Lady Bertha, c, Tavistock.	4 4 0	—		May 1867
1019	Leeds and St. Aubyn, t, c	19 13 4	—		Mar. 1866
160	Levant, c, t, St. Just	10 8 1	—		June, 1866
1024	Lovell Consols, t	—	—		
3000	Maes-y-Safn, l*	20 0 0	—		Jan. 1866
6000	Maudlin, c, Lostwithiel	4 7 0	—		May, 1865
640	Mount Pleasant, l, Mold	4 0 0	—		
1024	Nangiles, t, c, Kea	28 0 0	—		May 1867
12800	Nether Hearth* [6400 £1 pd., 6400 2s. pd.]				
6000	New Birch Tor & Vitifer, t‡	1 13 6	—		Oct. 1866
6000	New Clifford, c., Gwennap*	2 10 0	—		May 1867
24000	New Cornish [12000 £1 pd., 12000 15s. pd.]				Sept. 1866
6400	N. Crow Hill, l, St. Stephen	3 3 0	—		June 1867
6514	New E. Russell, c, Tavistk.	0 11 6	—		April, 1867
400	New Hendra, t, c, Breage	14 11 0	—		Mar. 1866
6400	New Pembroke, t, c	1 4 6	—		July 1867
5755	New Treleigh, c, Redruth	4 8 0	—		May, 1866
960	New Trevenen, t, Wendron	8 14 0	—		May, 1866
3729	New Wheal Lovell, t	1 18 0	—		Aug. 1867
400	New Wh. Seton, c, Cambn.	56 5 0	50		April 1867
2000	New Wheal Towan, c, t	1 10 0	—		July, 1866
16000	North Devon, s-l*	0 17 0	—		July, 1867
5000	No. Dolcoath, c, Camborne.	4 3 0	—		Mar. 1867
3457	North Downs, c, Redruth	4 16 4	—		June 1867
1361	No. Grambler, c, Redruth	7 13 3	—		Aug. 1867
16000	N. Hallenbeagle [8000 £1 pd., 8000 8s. 6d. pd.]				July, 1865
6000	North Jane, t, s-l, Kenwyn.	3 1 6	—		Mar. 1867
2000	North Levant, t, c, St. Just	10 12 0	—		April, 1867
20000	Nth. Minera, l, Wrexham*	1 0 0	—		Fully pd.
4000	N Phœnix, c, Linkinhorne	4 2 6	—		May, 1867
3933	North Pool, c, Illogan	5 16 0	—	1 1¼	Mar. 1867
1024	North Retallack Mine	2 0 0	—		Feb. 1867
695	No. Roskear, c, Camborne.	52 14 0	—	3 4	July 1867
1935	North Shepherds, l*	6 10 0	—		May, 1867
5936	No. Treskerby, c, St. Agnes	1 9 0	1⅜	1¼ 1¾	Dec. 1860
6000	North Wheal Basset, c, t†	5 0 0	—		April, 1866
5610	North Wheal Crofty, c†	3 11 3	4	3⅝ 3⅞	July 1866
3000	North Wh. Chiverton, l.	4 0 0	—		Mar. 1867
6144	N. Wh. Robert, Smp. Spiney	4 8 11	—		Mar. 1867
12288	Okel Tor, c, Calstock	2 7 4	—		Aug. 1866
8000	Okehampton	1 10 0	—		
8000	Old Gunnislake, c, Calstock	2 15 0	—		Mar. 1867
5000	Old Westminster, Denbigh*	2 0 0	—		June 1867
6400	Par Consols, c, St. Blazey†‡	2 12 0	—		July 1867
8465	Pedn-an-drea, t, Redruth	6 2 6	—		May 1867
5000	Pendeen Consols, c, St. Just	6 7 0	—		Aug. 1867
3335	Penhale Wheal Vor, t, c	3 12 6	—		July 1867
5000	Penhalls, t, St. Agnes	3 0 0	—		May, 1866
1772	Polberro, t, St. Agnes	15 0 0	—		Fully pd.
512	Polbreen, t, St. Agnes	8 0 0	—		Aug. 1860
10000	Prince Arthur Consols, l*	2 0 0	—		Fully pd.
12000	Redmoor, c, t, Callington	1 13 6	—	4s. 6s.	Aug. 1867
6000	Reinnie Laxey, l, I. of Man*	4 0 0	—		Feb. 1867
1024	Rose and Chiverton Un., l	5 0 0	—	6 6¼	Nov. 1866
2000	Rosecliff and Tolcarne, l*	9 0 0	—		April 1867
3973	Rosewarne Consols, c	5 2 6	—		Feb. 186
5915	Rosewall Hill & Ransom, c	3 0 0	—		Aug. 186
3848	Rosewarne United, c, t	4 3 0	—		June 1867
16000	Shropshire Copper, c*	2 10 0	3	2½ 3	Fully pd.
20500	Snaefell, l, Isle of Man*	1 0 0	—		Fully pd.
400	Silver Brook, s-l, Carmar.*	10 0 0	—		July, 1866
4096	Sithney Wheal Metal, t	4 5 6	—		Oct. 1866
12000	Sortridge Cons., c, Tavist.†	1 14 6	—		Oct. 1866
512	South Basset, c, Gwennap.	25 10 0	—		June 1867
1024	South Callington, s-l	5 17 6	—		Jan. 1867
3000	So. Chiverton, s, l, Perran.	5 15 0	—		June, 1866
6138	So. Condurrow, t, c, Camb.	3 15 6	⅝	½ ⅝	May 1867
2283	South Crenver, c, Crowan	12 9 0	—		Oct. 1866
1024	South Devon, c & l	3 0 0	—		
6000	S.Dolcoath&Carnarth.Con.	2 16 6	—		Aug.
5000	So. Exmouth, l, Christow	2 17 0	—		Feb.
6000	So. Fowey, c, Tywardreath	0 10 0	—		April
1024	So. Herodsfoot, l, Liskeard	10 15 0	—		July
30210	South of Scotland, c*	0 17 6	—		Sept.
3000	South Trevenna, c, t	2 0 0	—		Dec.
937	So. Wh. Crofty, c, Illogan.	24 10 10	—		Feb.
496	So. Wh. Frances, c, Illog.†‡	18 18 9	30	22½ 25	
6000	South Wheal Grenville, t, c	0 18 0	—		Feb.
400	So. Wh. Seton, c, Camborne	78 13 0	—		July
512	South Tolgus, c, Redruth	9 10 0	—		Aug.
64	Spearne Consols, t, St. Just	13 2 6	—		May
280	Spearne Moor, t, St. Just	6 2 0	—		Dec.
940	St. Ives Consols, t, St. Ives‡	10 15 0	—		Nov.
673	St. Ives Wheal Allen, t	18 10 1	—		Nov.
9000	St. Just Cons. t [6000 £1 pd., 3000 10s. pd.]				Sept.
7000	Stiperstones, l, Salop*	5 0 0	—		Mar.
920	Stray Park, c, t, Camborne†‡	43 6 8	—		July
3500	Tin Hill, t, St. Austell	1 8 0	—		Jan.
6000	Tolcarne, c, Camborne	3 1 6	—		July,
548	Trelyon Consols, t, St. Ives.	16 0 0	—		Dec.
501	Tresavean and Trethurrup	16 11 0	—		July
4440	Trevenen & Tremenheere	7 11 0	—		June
4096	Treweatha, s-l, Menheniot.	7 17 0	—		Mar.
1943	Treworlis, t, Wendron	11 15 4	—		Feb.
6400	Tyne Head, t, c*	0 18 0	—		Jan.
4200	Vigra and Clogau, c, Dolg.*‡	5 0 0	—		Fully
2500	West Briton, c, Crowan	1 0 0	—		
6000	West Basset, c, Illogan†‡	1 15 0	16s.		Mar.
1024	West Caradon, c†‡	17 0 0	9	8 10	July
1319	West Cwm Erfin, l* [319 £4 raid]		—		April
2850	W. Condurrow, t, c, Cam.	12 11 3	—		Aug.
256	West Damsel, c, Gwennap.	38 10 0	—		
12800	West Drake Walls, c	0 2 6	—		Mar.
2592	West Great Work, t*	5 11 0	2¾		June,
5000	West Godolphin, t, c	—	—	4½ 4¾	
12000	W.Maria & Fortes., c, Lam.	3 10 0	—		June
6000	Westminster, l*	5 0 0	—		Fully pd.
12800	West Prince of Wales, c	1 0 0	⅝		
1000	West Rose Down, c, Linkin.	19 5 0	—		July
6000	West St. Ives, t, c	0 1 0	⅝	½ ⅝	Oct.
512	West Tolgus, c, Redruth	54 10 0	—		July
512	W. Wh. Frances, t, Illogan	105 15 0	—		May
5000	W. Wh. Kitty, t, St. Agnes.	2 17 6	¾		May
6000	Wheal Agar, c, Illogan	7 8 6	—		July
6000	Wheal Alice Alfred, t, c	2 0 0	—		Feb.
1000	Wheal Basset and Grylls, t	7 18 6	—	2 3	Aug.
512	Wheal Buller, Redruth†‡	21 10 0	25	20 22	Mar.
6000	Wheal Crebor, c, Tavistock	2 4 0	½	4s. 6s.	Aug.
6144	Wh. Damsel, c, t, Gwennap	2 15 0	—		July
849	Wheal Emily-Henrietta, c.	18 5 0	—	5 6	July
4000	Wh. Emma, c, Buckfastlei.	3 19 0	1¾		July
6000	Wheal Grenville, c, Camb.†	9 18 0	⅝	½ ⅝	June
6000	Wheal Ida, s-l, St. Ive	1 3 0	—		May
1024	Wh. Kitty, t, Uny Lelant†	3 10 6	—		
512	Wheal Jane, s-l, Kea	10 10 0	12		Sept.
896	Wh. Margaret, t, Uny Le.‡	13 17 6	6	5 7	
728	Wheal Margery, t, c	26 14 0	—		Aug.
100	Wheal Mary, t, Lelant‡	36 2 6	—		
6000	Wheal Mary Florence, c*	1 19 0	—		Feb.
1000	Wh.MaryHutchins, c, Plym.	2 0 6	—		June
6000	Wh. Norris, t, c, St. Cleer	4 6 1	—		Sept.
80	Wheal Owles, t, St. Just‡	70 0 0	—		
6000	Wheal Sparnon, c, Redruth	3 6 0	—		May
1920	Wh. Trannack, c, Sithney.	1 13 3	—		Jan.
1200	Wheal Trevenna, t, c*	9 10 0	—		April
4096	Wheal Uny, t, c, Redruth	10 9 6	1		July

MISCELLANEOUS.

60000	Anglo-American Telegr.*†	10 0 0	17	16⅛ 17
20000	Anglo-Mexican Mint†	10 0 0	—	13⅛ 14⅛
600000	Atlantic Telegraph*†	100 0 0	32	
600000	ditto 8 per cent.*†	100 0 0	72	70
20000	Australian Agricultural†	20 10 0	—	17 19
47000	Berlin Waterworks*†	10 0 0	13¼	13 13½
13000	ditto New*†	4 0 0	—	5½ 6
25000	Bolckow, Vaughan*†	25 0 0	—	
40000	Bombay Gas*†	5 0 0	4¾	
10000	ditto New*†	3 0 0	2½	
6000	British American Land†	44 0 0	23	
534780	Brit. & Irish Mag. Teleg.*†	100 0 0	—	
25000	Ceylon Company*†	10 0 0	8¼	7½ 8½
12000	ditto A shares*†	5 0 0	3	
27000	ChinaStm.-ship&Lab.Coal†	11 0 0	—	
30000	City Discount*†	3 0 0	—	
20000	City London Real Prop.*†	8 0 0	5⅛	5 5⅛
35000	City of Moscow Gas*†	25 0 0	16	15 16
15041	City of Milan Improv.*†	17 10 0	—	12 14
4959	ditto ditto *‡	30 0 0	—	
20000	City Offices*†	25 0 0	—	
30000	Colonial*‡	15 0 0	11	
10000	ditto*†	22 10 0	—	
50000	Commercial Uni. (Insu.)†	5 0 0	4	3¾ 4¼
17500	Continental Union Gas*†	15 0 0	—	
2500	ditto ditto *†	20 0 0	—	
42000	Copper Miners of Eng.† [2000 £25 pd., 40000 £100 pd.]			
10000	Cred. Fonc. of Mauritius*†	10 0 0	—	5⅛ 6⅛
1002925	Crystal Palace†	100 0 0	26	24 26
160820	ditto preference†	100 0 0	—	96½ 101½
277000	ditto 6 per cent. p.d.†	100 0 0	109	104 107
7500	Darjeeling*†	17 0 0	—	
20000	E. Indian Land, Credit*†	10 0 0	—	
5000	E. India Irriga. & Canal†	16 10 0	—	13 14
80000	Ebbw Vale Iron Co.*†	27 10 0	—	
113813	Egyptian Com. & Tradg.*†	7 0 0	1¾	1⅛ 1⅜
879975	Electric Telegraph†	100 0 0	142	
70000	Eng. and Australian, c‡	2 10 0	¾	½ ¾
20000	English and For. Credit*†	7 10 0	—	2 3
25000	Fairbairn Engineering*†	5 0 0	—	
30000	Fore-street Warehouse*†	12 0 0	12⅛	12⅜ 12⅛
200000	General Credit and Disc.*†	7 10 0	—	5¼
20000	General Stm. Navigation†	14 0 0	28	26 28
4000	Hollybush Col. and Coke*	5 0 0	—	
100000	Hudson's Bay†	20 0 0	15¼	14⅞ 15⅛
30000	Im. Land Co. Marsailles*†	11 10 0	—	
150000	International Financial*†	5 0 0	3⅛	2⅞ 3
50000	Italian Irrigation*†	20 0 0	—	2 3
1000000	ditto 6 per cent.*†	100 0 0	40	35 37
30000	Italian Land†	5 0 0	—	3⅛ 4
20000	Land Securities*†	5 0 0	—	
4000	London African Tradg.*†	10 0 0	5	
20000	Lon. & Caledon. Marine*†	5 0 0	—	
12000	London Dist. Telegraph*†	5 0 0	1⅛	
148525	London Gen. Omnibus *†	4 0 0	2⅞	2⅛ 2¾
5000	London and Glas. Engi.*†	25 0 0	—	
64500	London & Prov. Marine*†	2 0 0	2	
50000	Madras Irrigation*†	100 0 0	101	99 101
10000	Marine Investment*†	6 5 0	—	
12500	Mauritius Land, Cred., &c.*†	2 0 0	—	
12000	Mediterranean Ex. Tel. *†	10 0 0	2¾	
9280	Merchant Shipping*†	50 0 0	—	33 38
500000	Millwall Freehold Land*†	100 0 0	45	45 47
40000	Millwall Ironworks*†	7 10 0	—	
30000	Mineral Rights Assoc.*	1 0 0	¾	
36500	Natal Land and Col. *†	5 10 0	—	
160000	National Discount*†	25 0 0	11⅛	11¼ 11¾
20000	National Provin. Marine*†	2 10 0	—	
20000	National Steam Naviga.*†	30 0 0	—	12 14
25000	New Consolidated Disct.*†	3 0 0	—	
20000	New Zealand Loan, &c. *†	2 10 0	—	
20000	New Zealand Trust, &c.*†	5 0 0	5¾	
40000	N. British & Merc. Insur.†	6 5 0	—	15 16
15000	Northern Assam Tea*†	3 10 0	—	
25000	ditto B*†	9 0 0	—	
30000	Oriental Gas*†	5 0 0	5¾	5¼ 5¾
30000	ditto New*†	1 0 0	1⅜	1⅛ 1⅜
25000	Otago and Southland*†	2 0 0	1⅜	
20000	Peninsular and Oriental*†	50 0 0	49	47 49
20000	ditto ditto New*†	50 0 0	49	
100	Picksley, Simms and Co.	7 0 0	—	
10000	Rhymney Iron*†	50 0 0	26	24 26
10000	ditto New*†	50 0 0	8	
15000	Royal Mail Steam*†	60 0 0	90	90 92
300000	Scottish Austra. Invest.*†	100 0 0	120	115 120
14200	South Australian Land*†	25 0 0	36	34 36
280000	Submarine Telegraph*†	100 0 0	—	68 70
—	ditto Scrip*†	1 0 0	—	
100000	Thames & Mersey Marine*†	2 0 0	6	5¼ 5¾
30000	Uni.Kingdom Telegraph*†	5 0 0	3¼	1¼ 1¾
20000	ditto 10 per cent. pref.*†	5 0 0	—	

b, blende ; cl, coal ; c, copper; g, gold ; l, lead ; s, silver ; sl., slate ; s-l, silver-lead ; t, tin ; z, zinc.

*** Companies marked thus * have been incorporated with Limited Liability; those marked † have been admitted on the Stock Exchange, those marked thus ‡ have paid Dividends.

*** Our object being to make the Share List correct, we earnestly call upon those who have the power to aid us, by forwarding any corrections or correction which may, from time to time, come under their notice. To shareholders, as well as those officially connected with the mines, we appeal for information. Reports from mines—in fact, mining intelligence of every description, forwarded to our office, will meet with ready attention.

London : Printed by RICHARD MIDDLETON,l and published by HENRY ENGLISH (the proprietors), at their office, 26, FLEET STREET, E.C. where al communications are requested to be addressed.—*August* 24, 1867.